

FIG. 1A

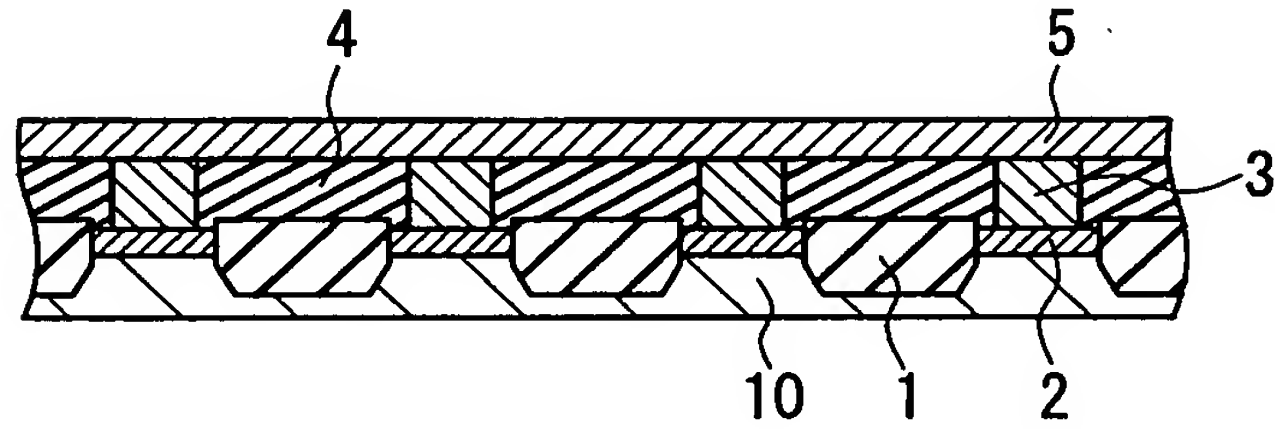


FIG. 1B

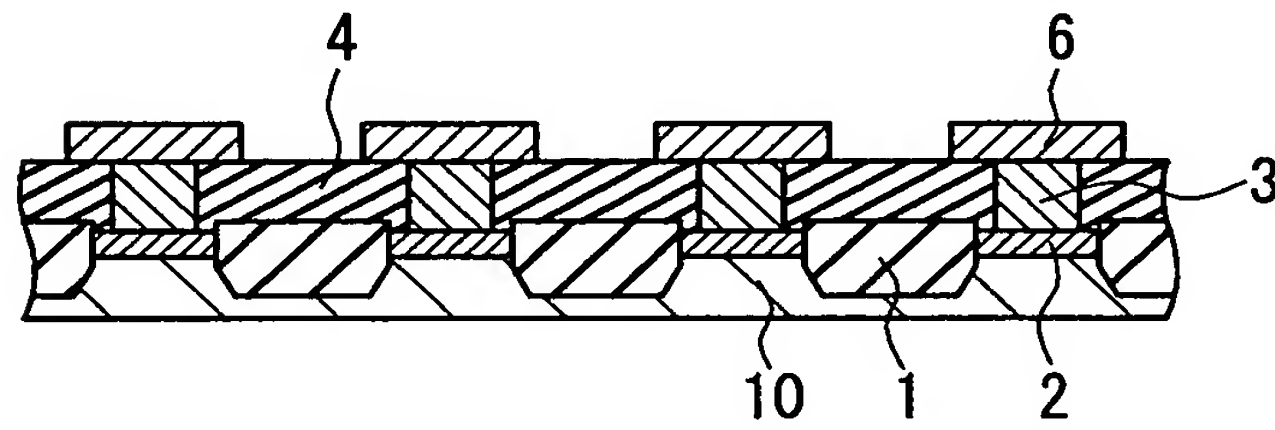


FIG. 1C

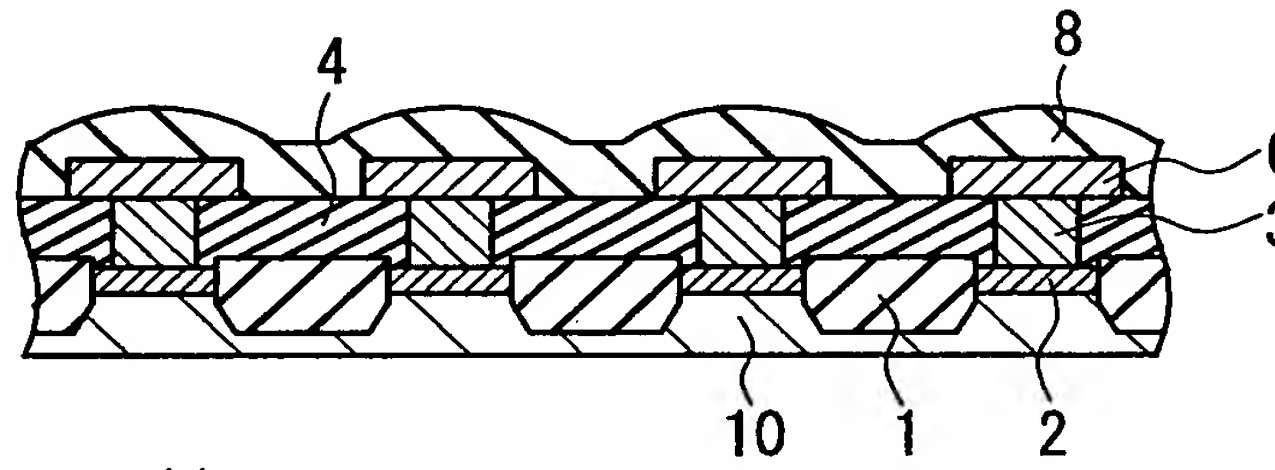


FIG. 1D

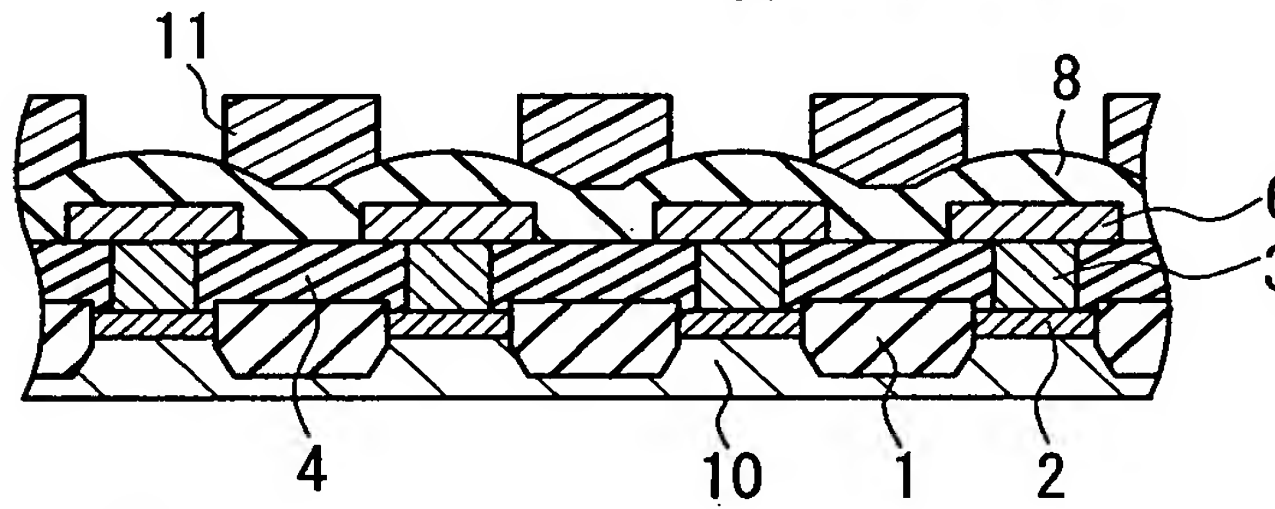


FIG. 1E

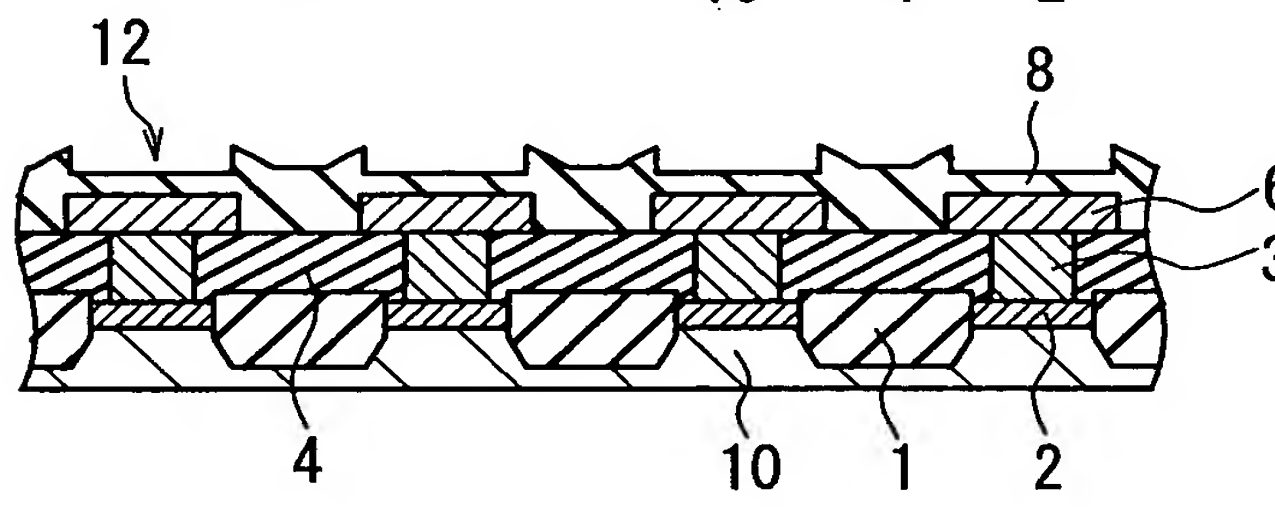


FIG. 1F

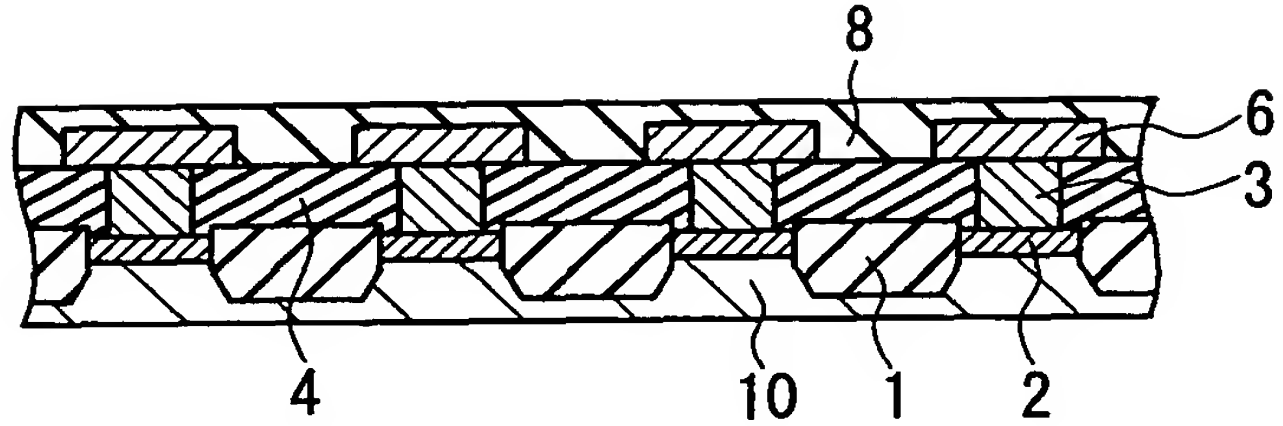


FIG. 1G

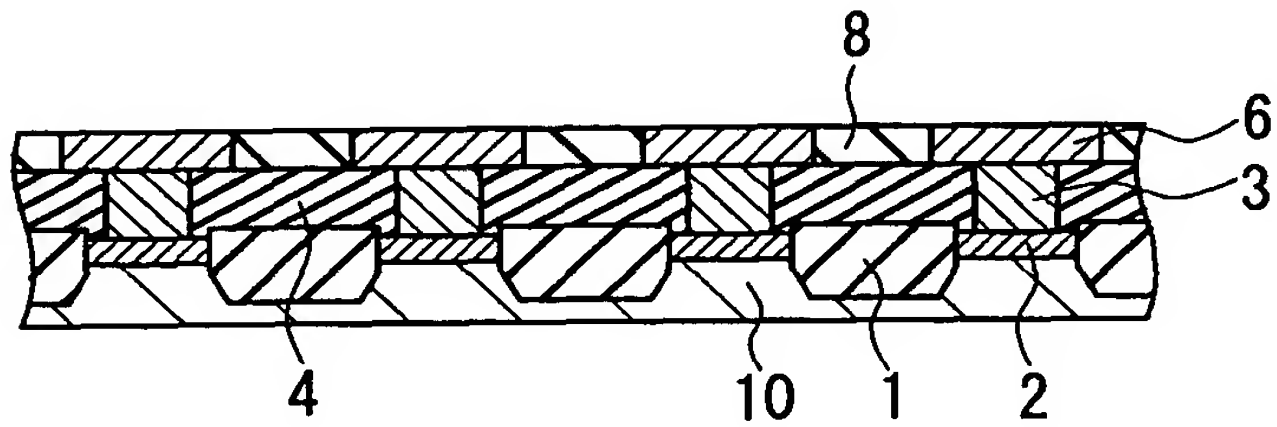


FIG. 1H

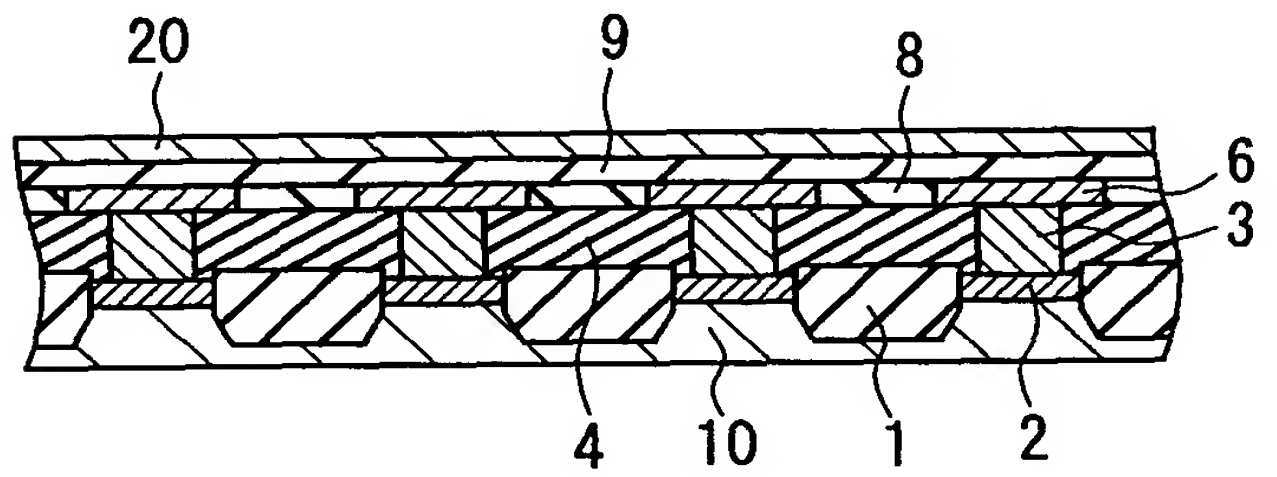


FIG. 1I

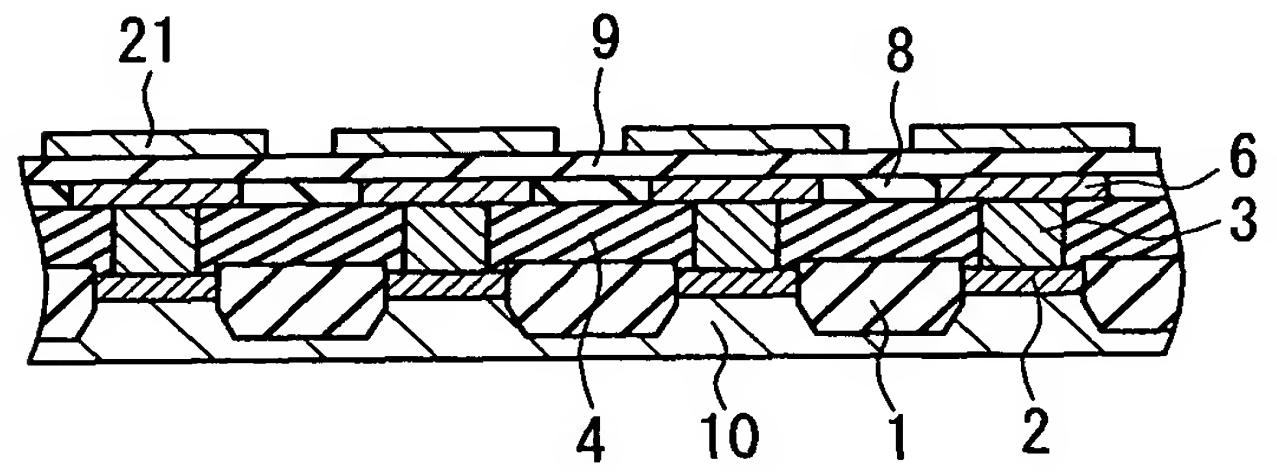


FIG. 1J

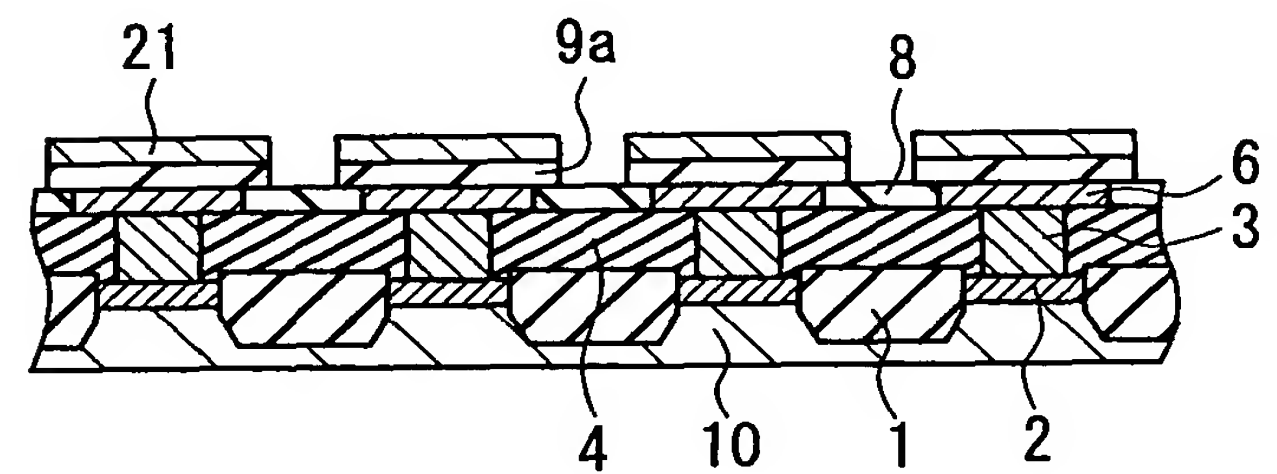


FIG. 2A

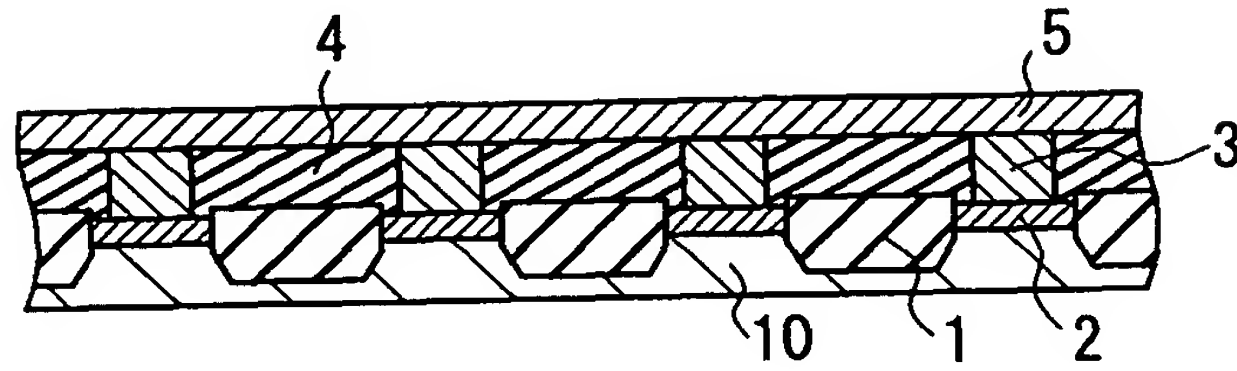


FIG. 2B

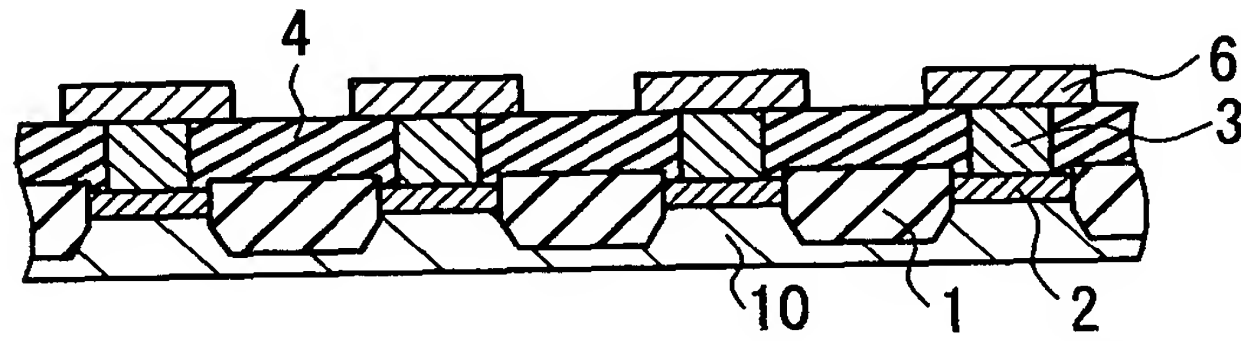


FIG. 2C

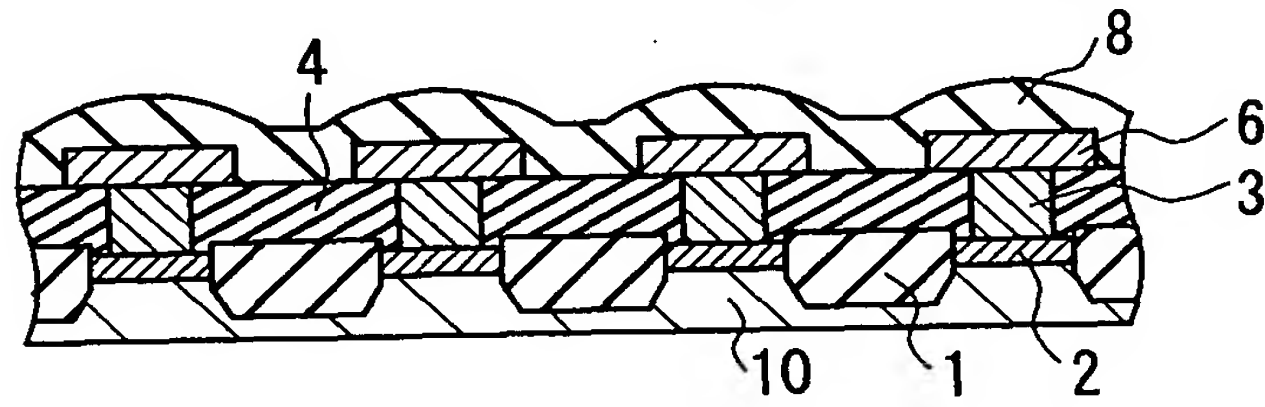


FIG. 2D

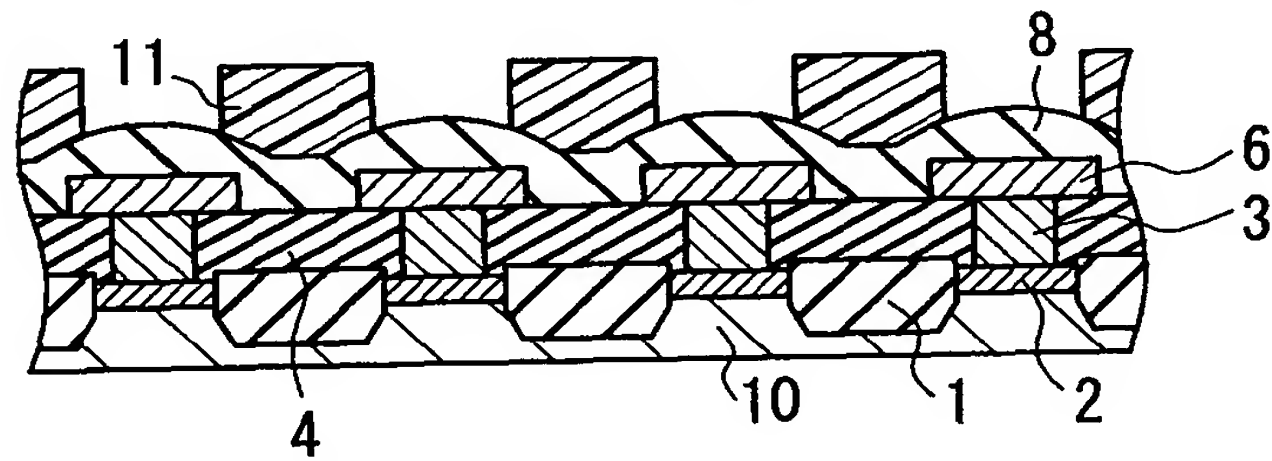


FIG. 2E

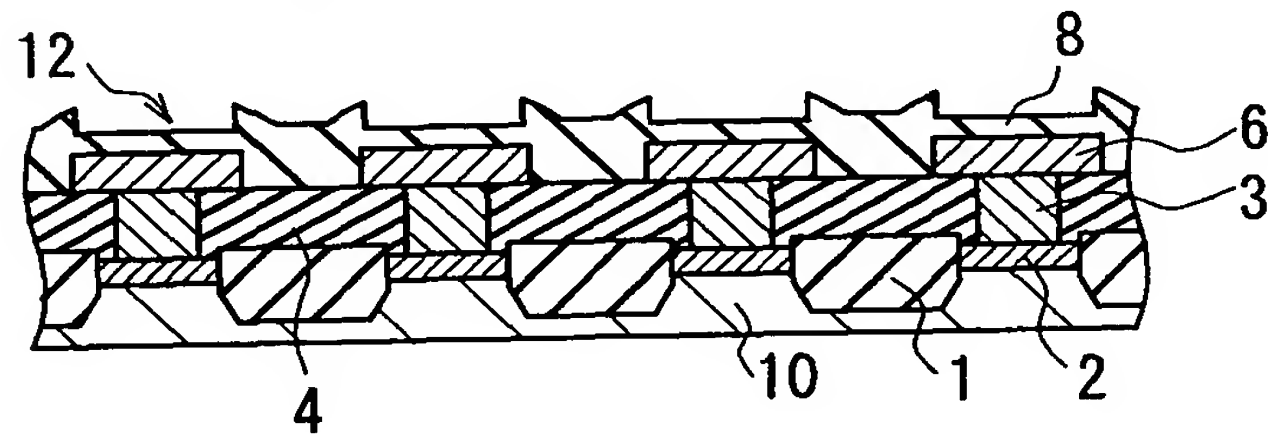
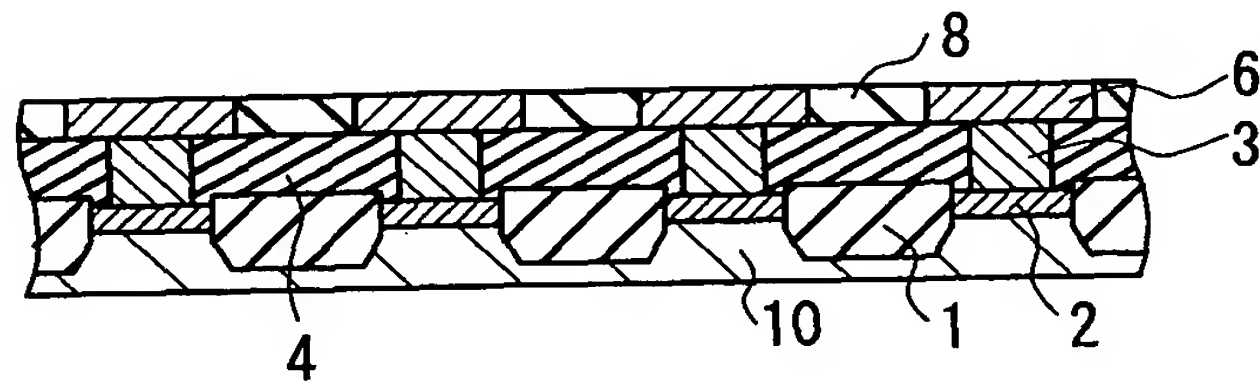
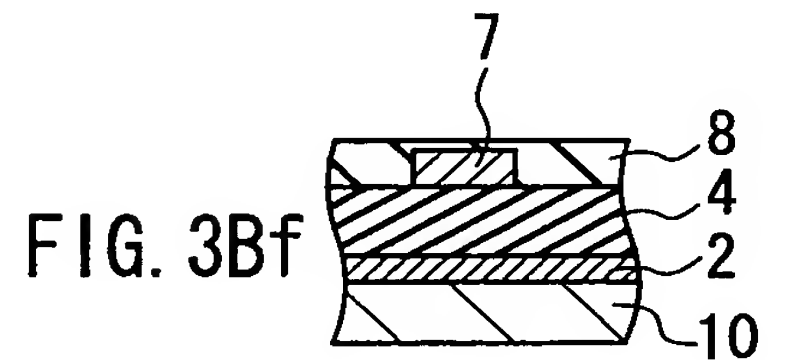
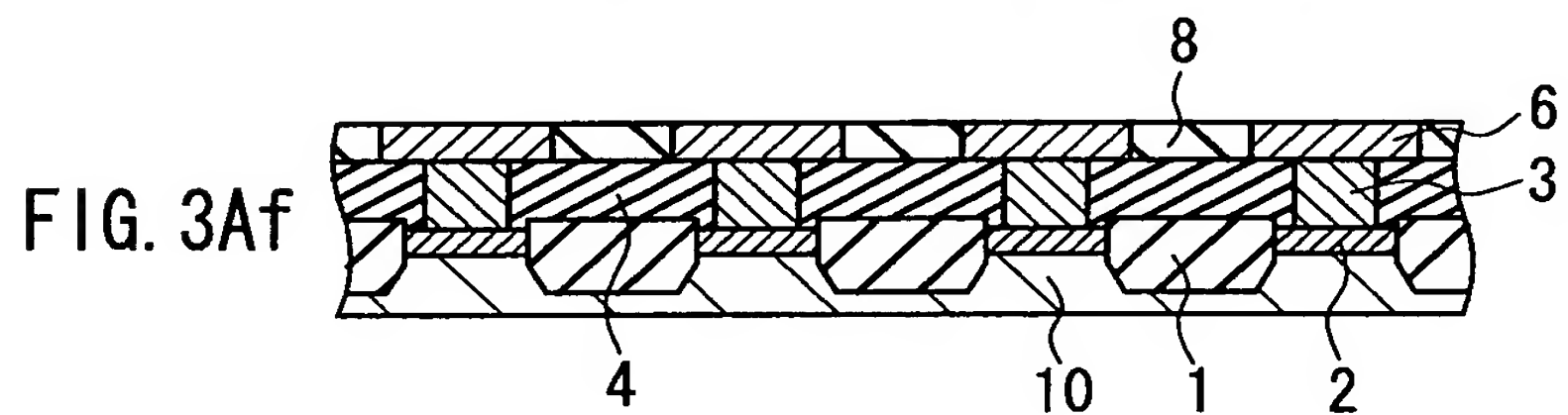
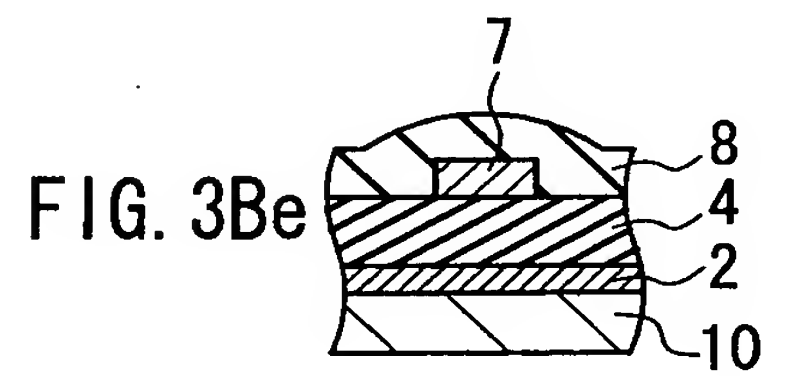
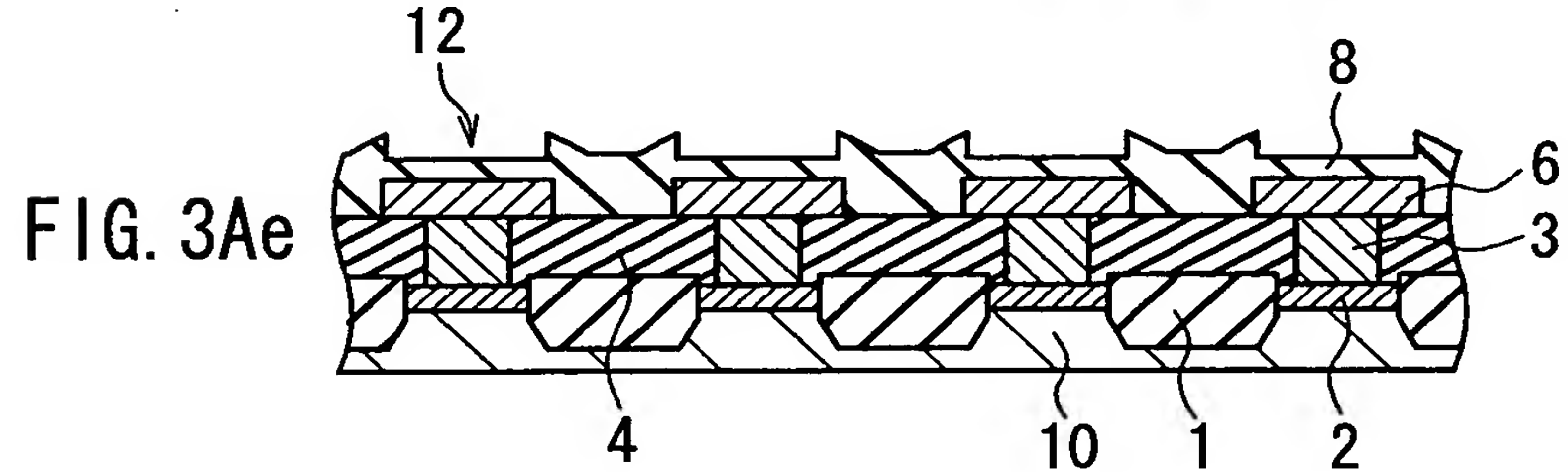
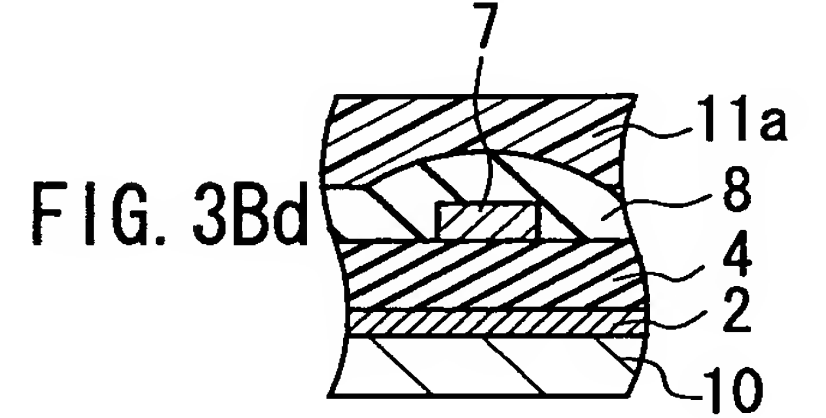
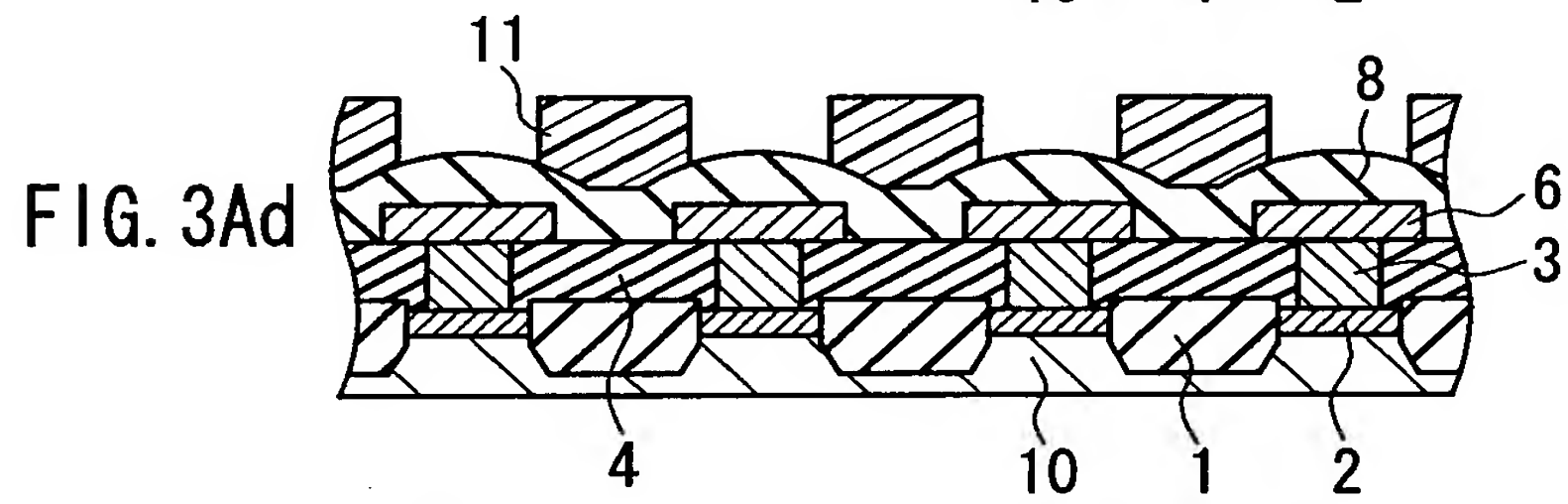
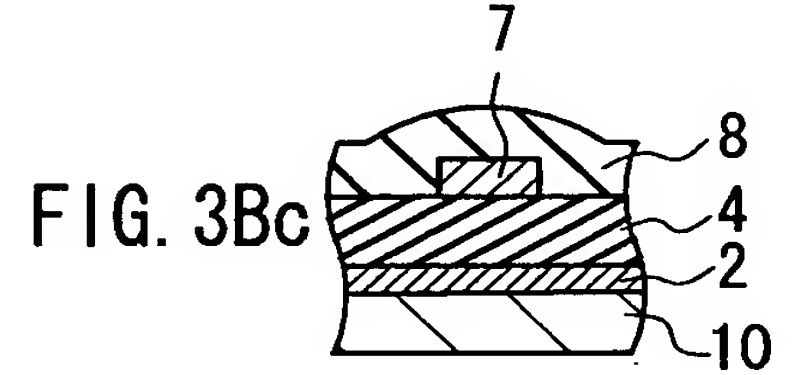
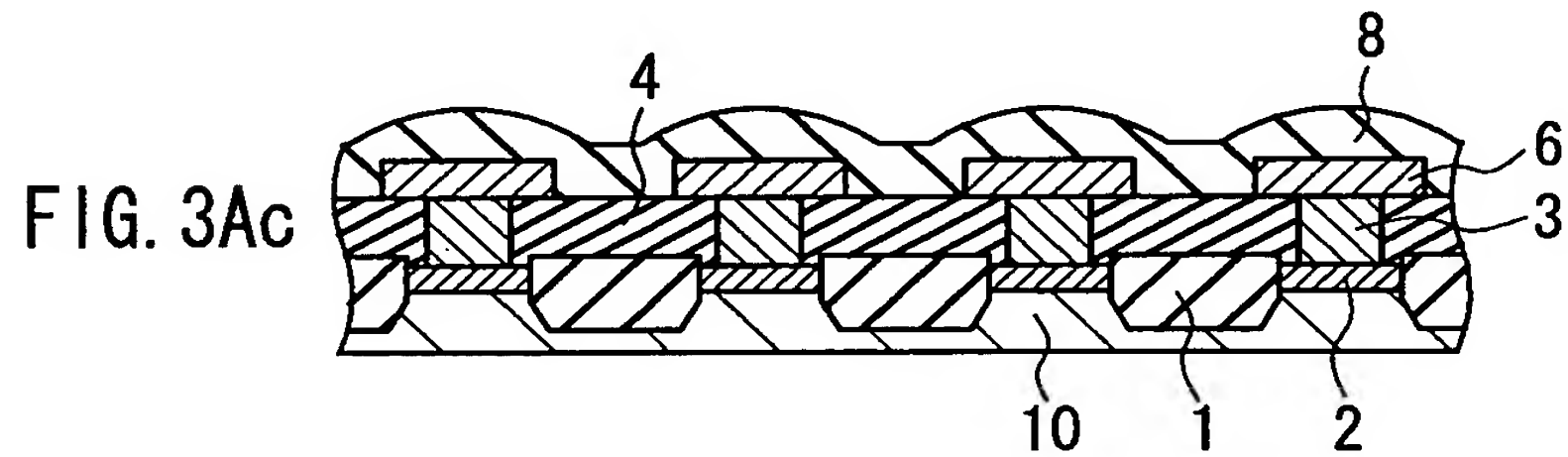
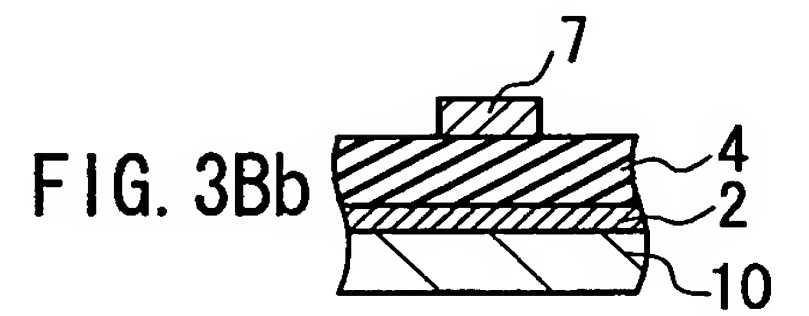
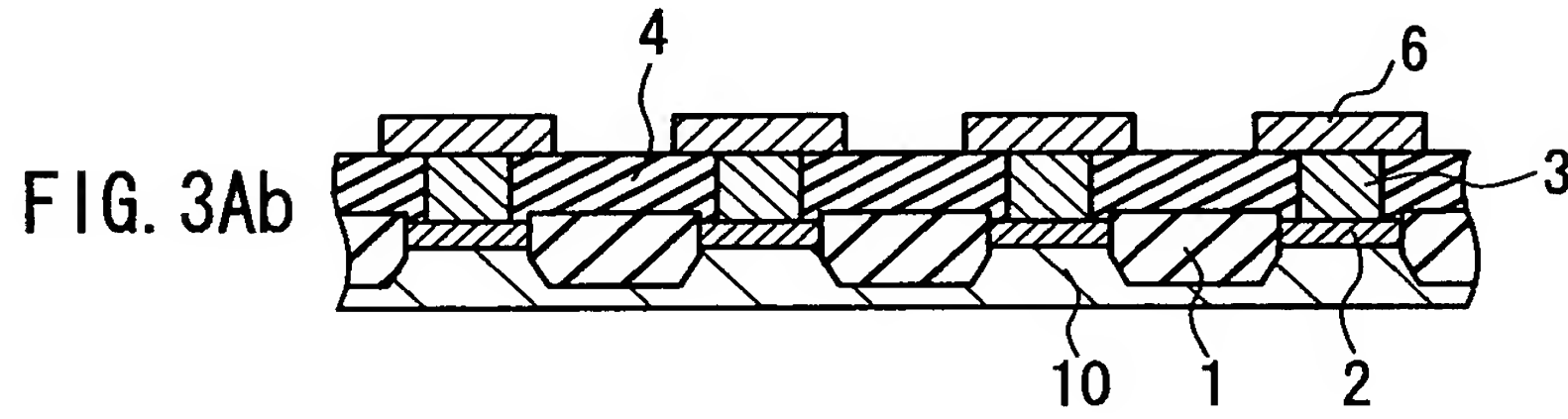
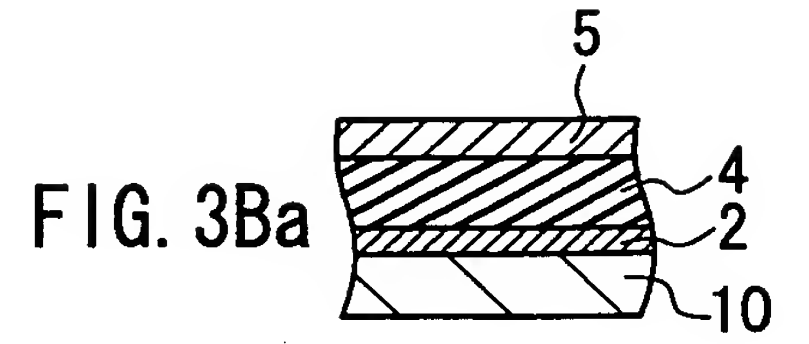
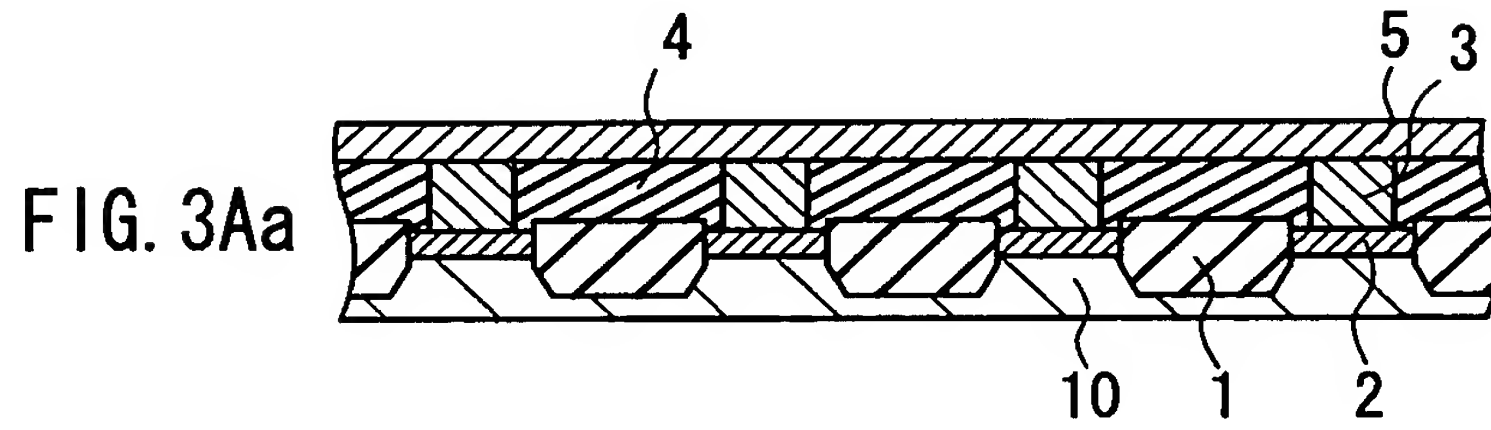


FIG. 2F





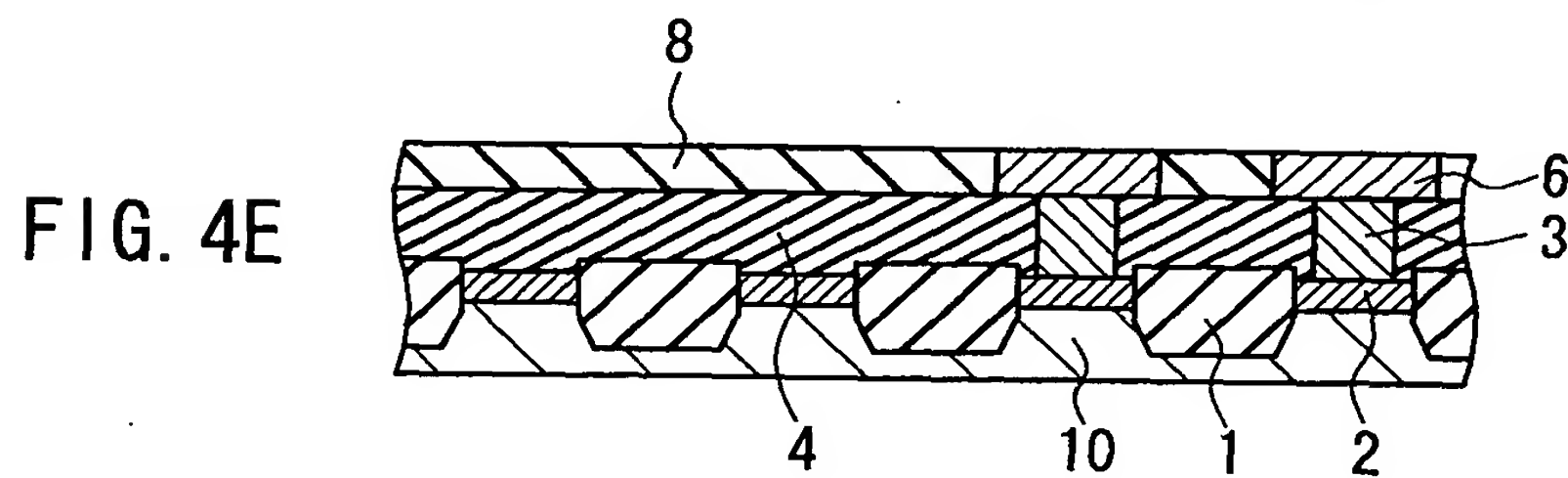
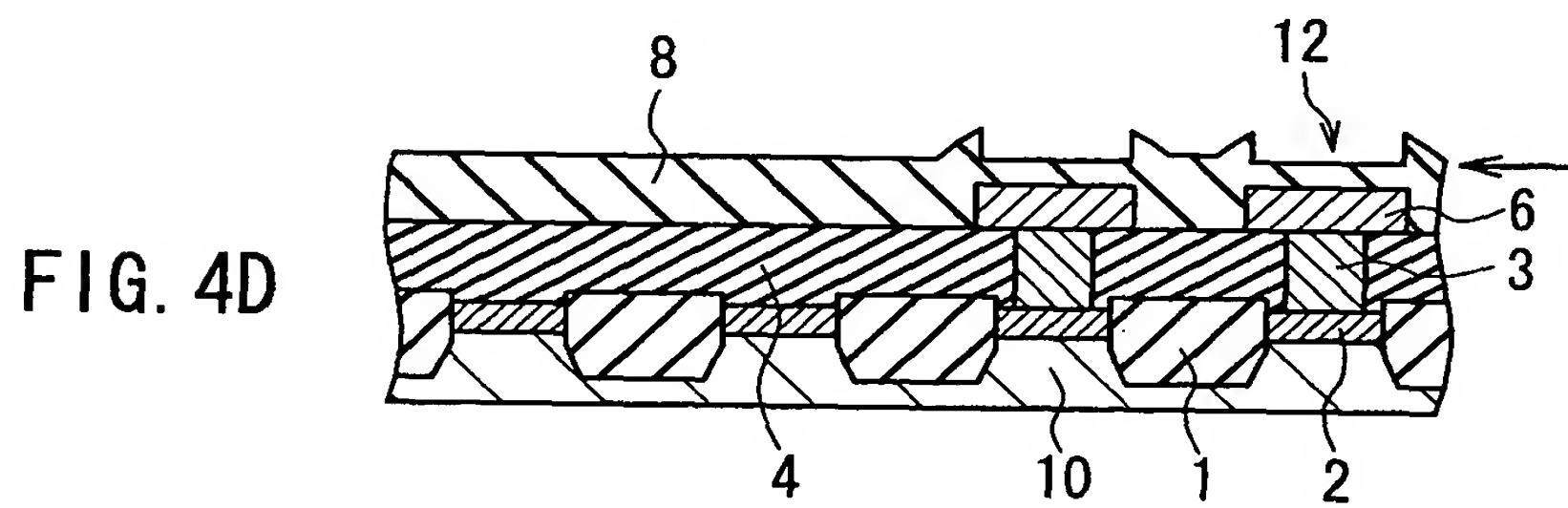
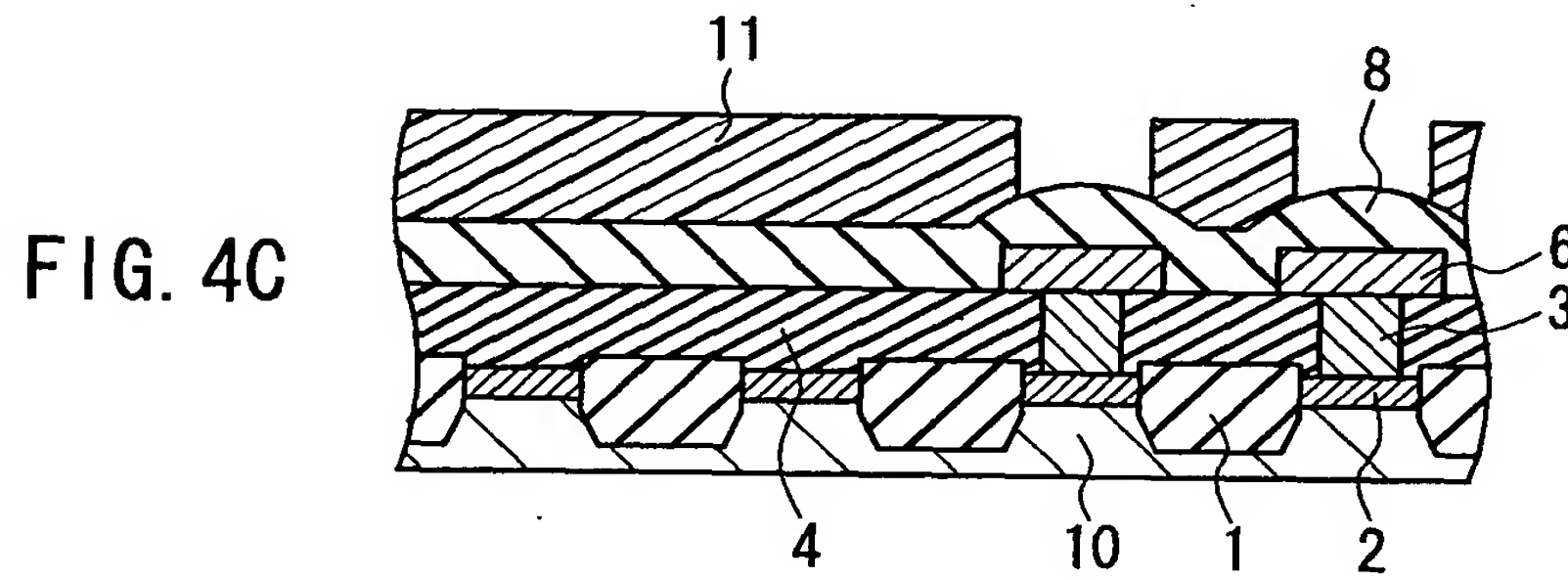
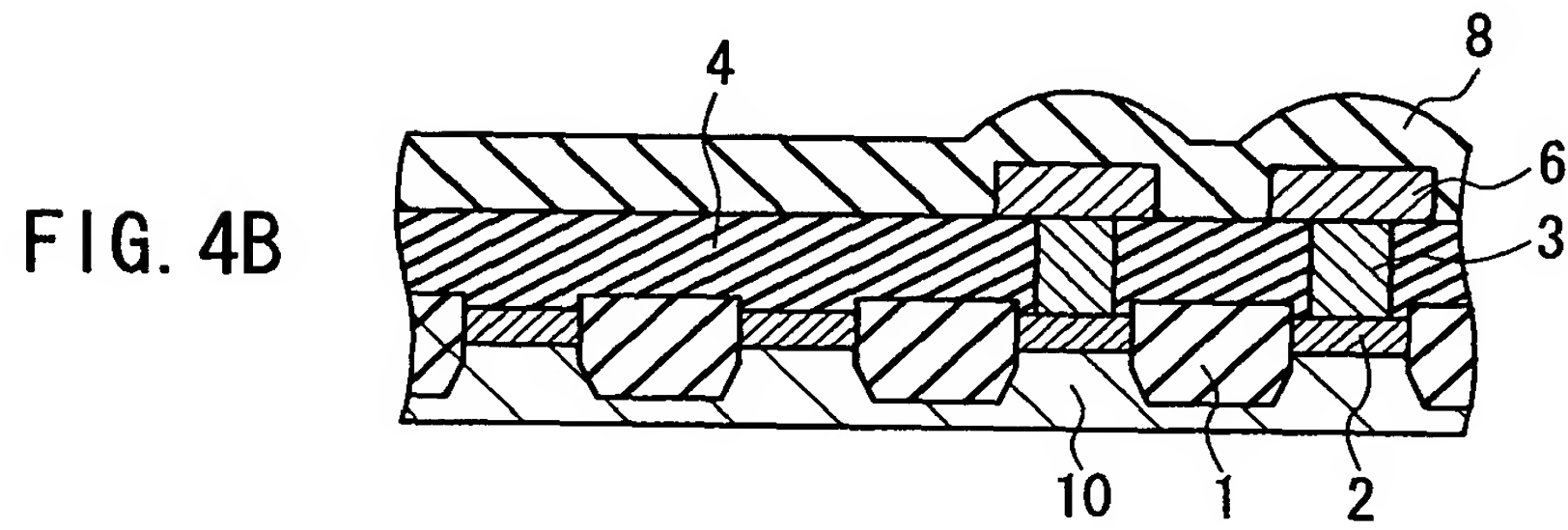
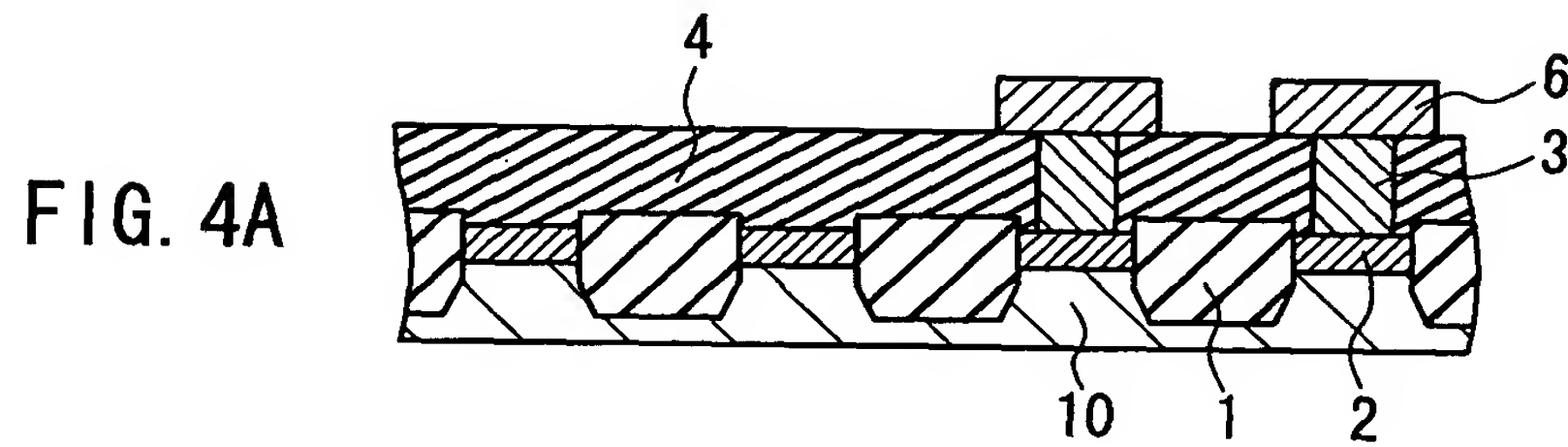


FIG. 5A

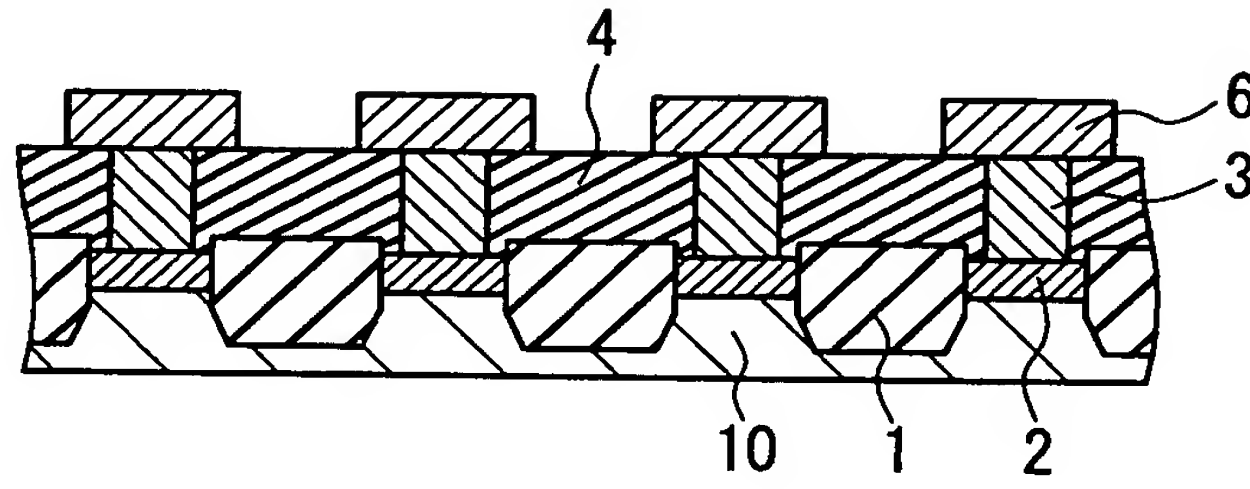


FIG. 5B

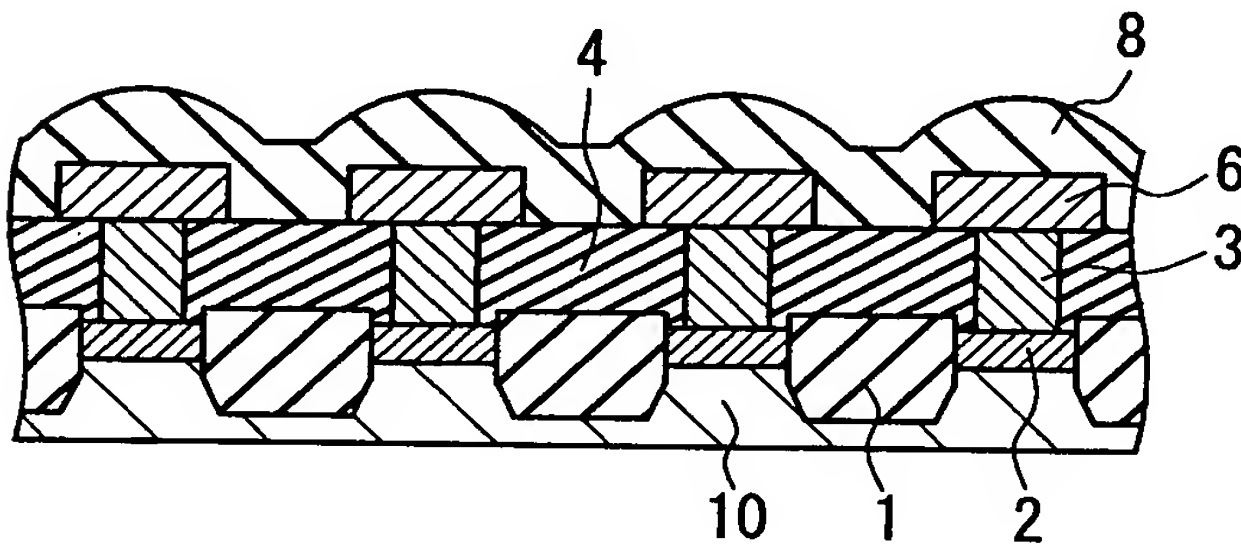


FIG. 5C

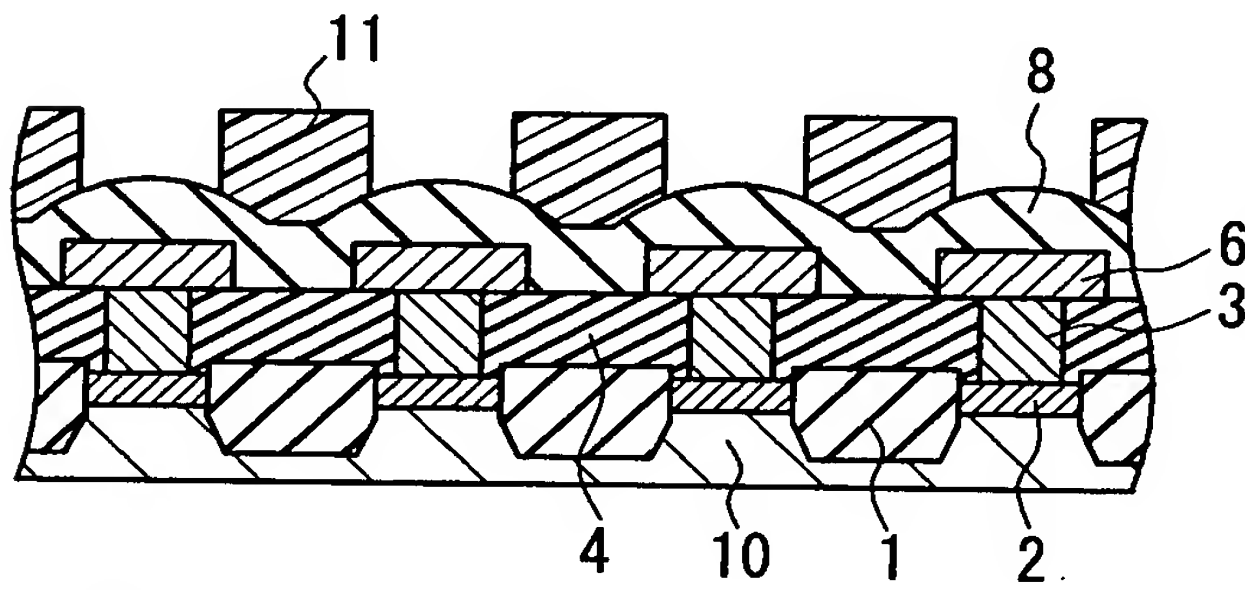


FIG. 5D

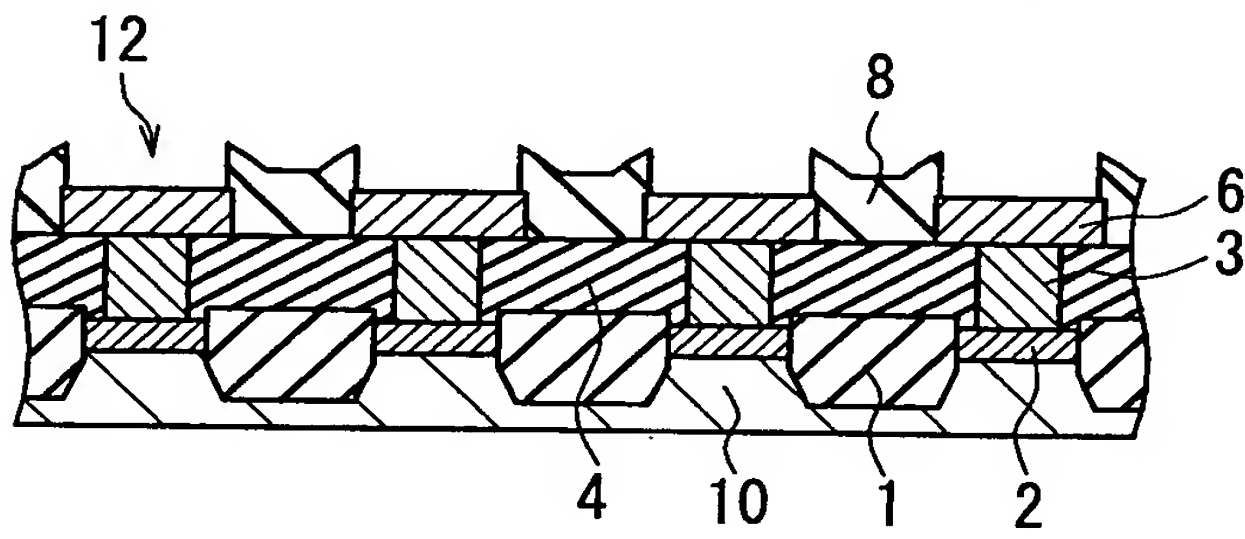


FIG. 5E

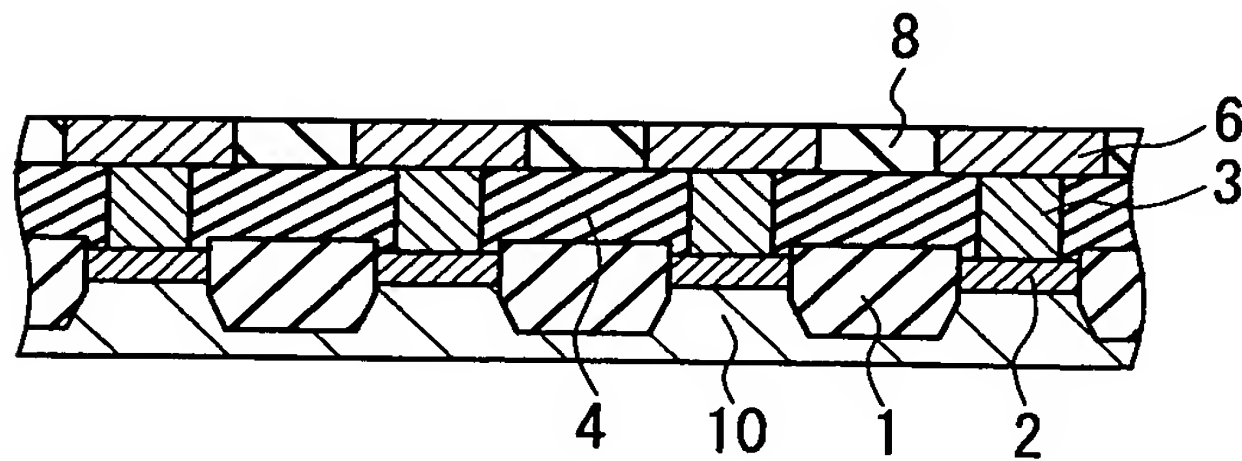


FIG. 6A

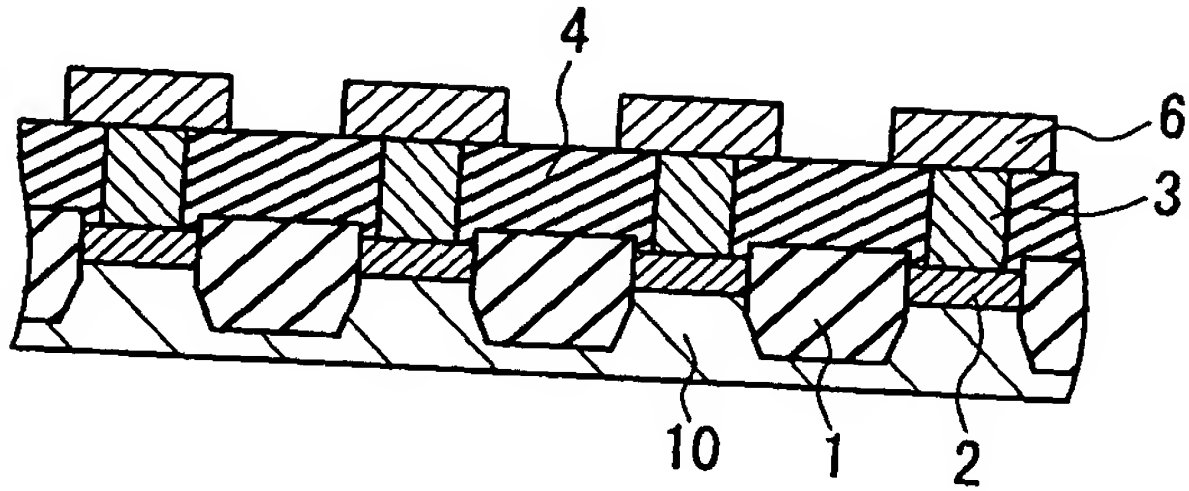


FIG. 6B

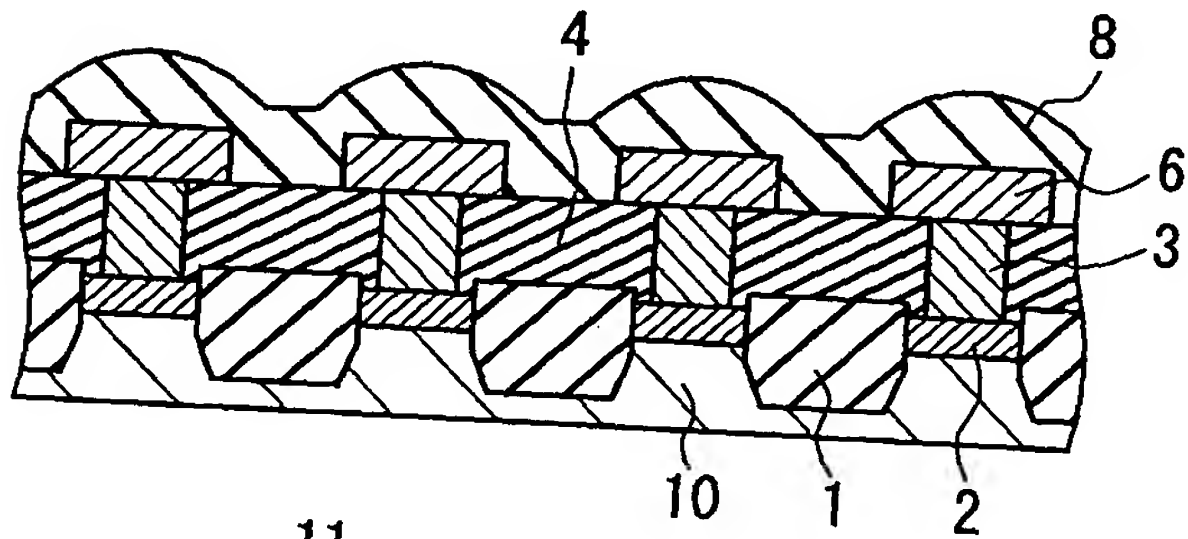


FIG. 6C

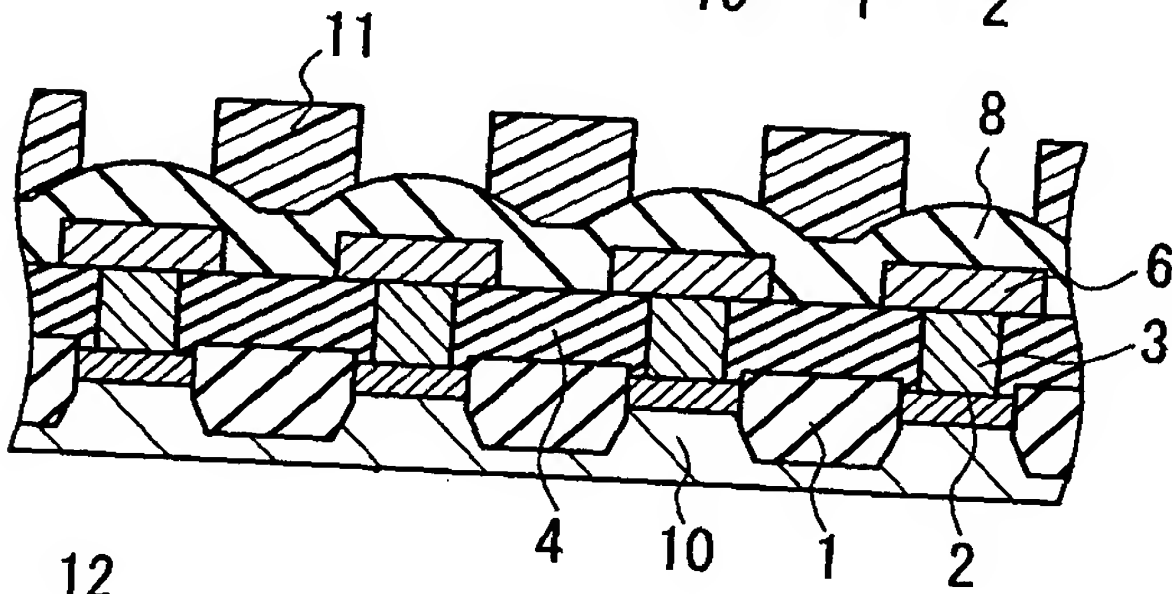


FIG. 6D

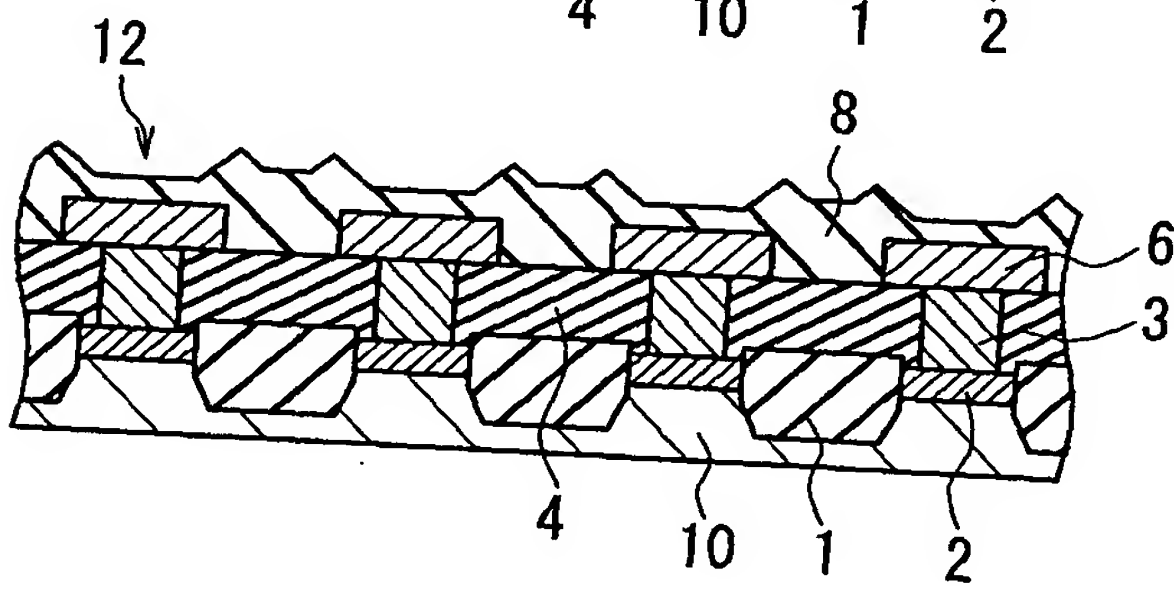


FIG. 6E

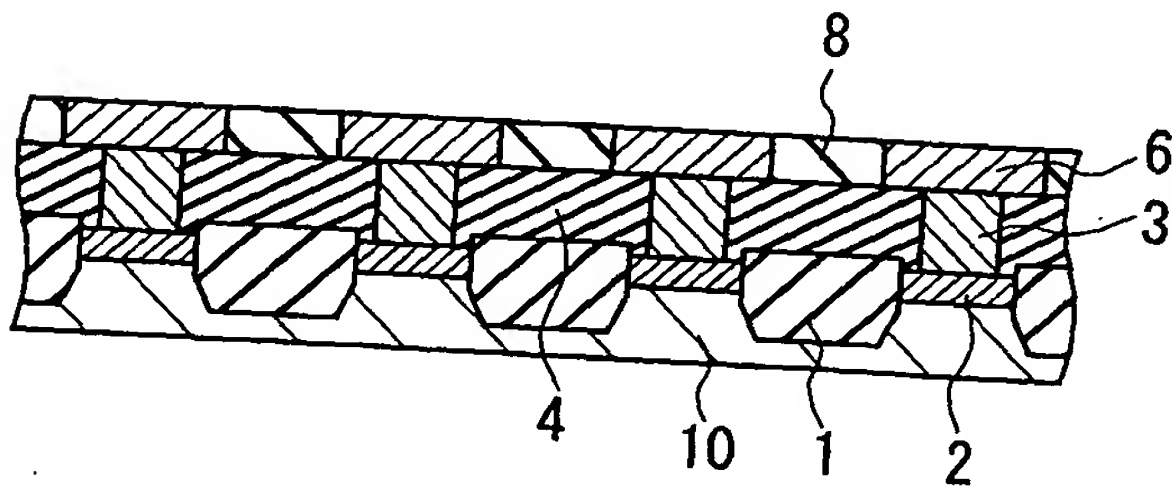


FIG. 7A

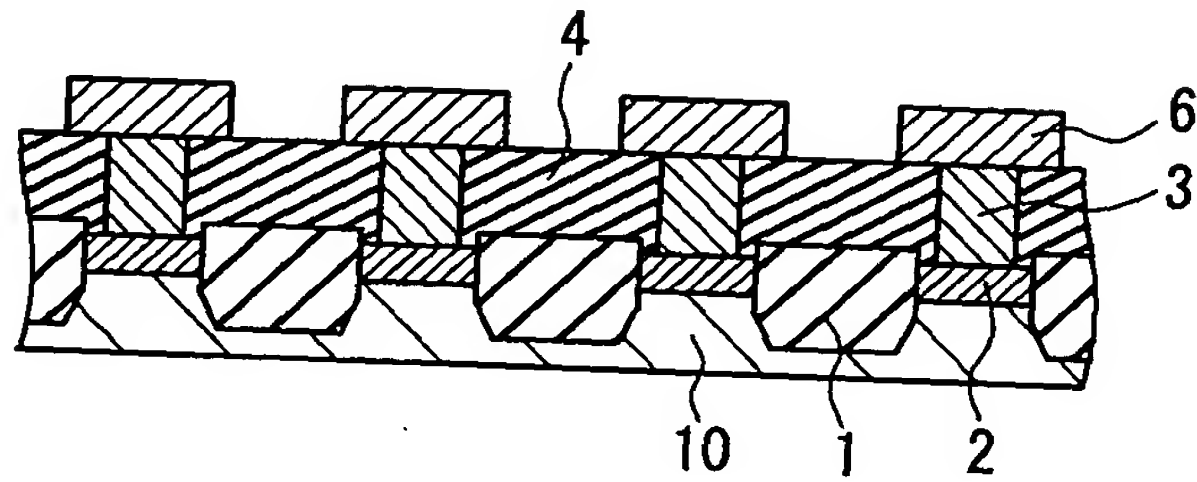


FIG. 7B

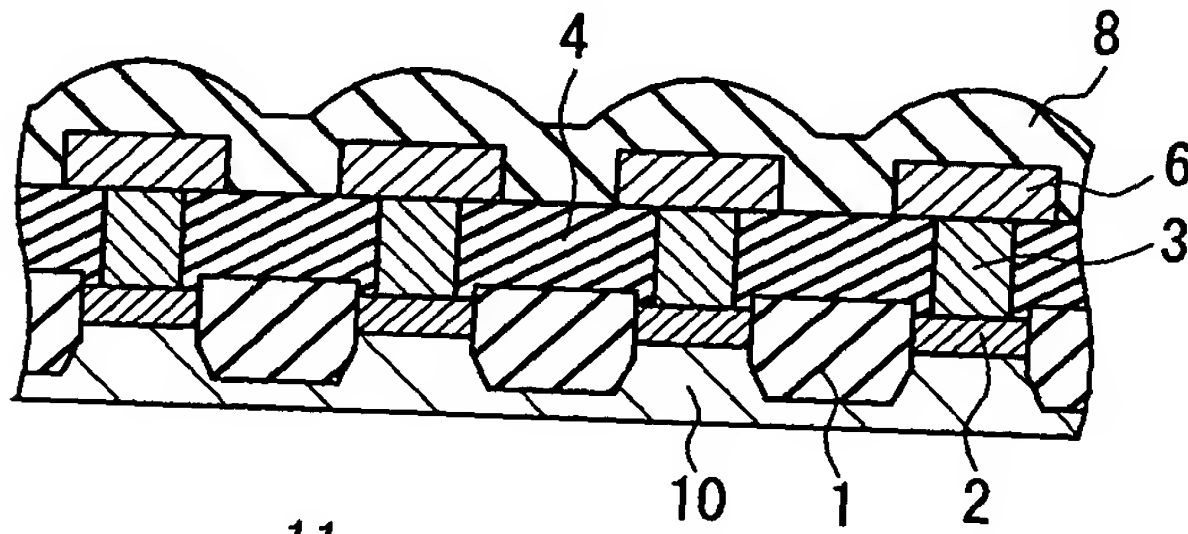


FIG. 7C

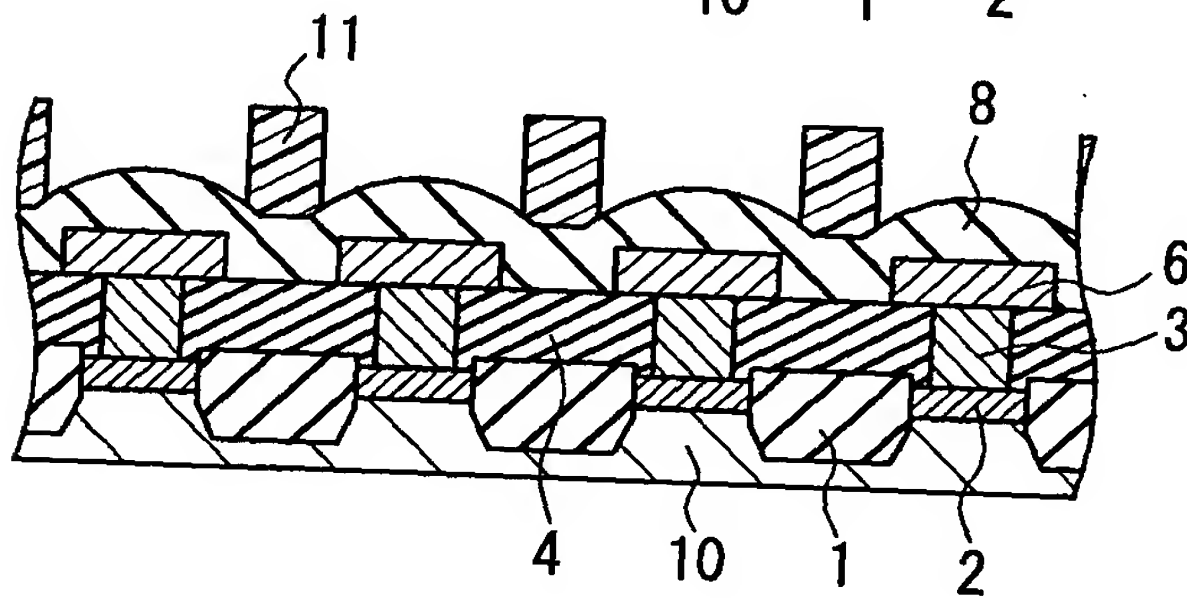


FIG. 7D

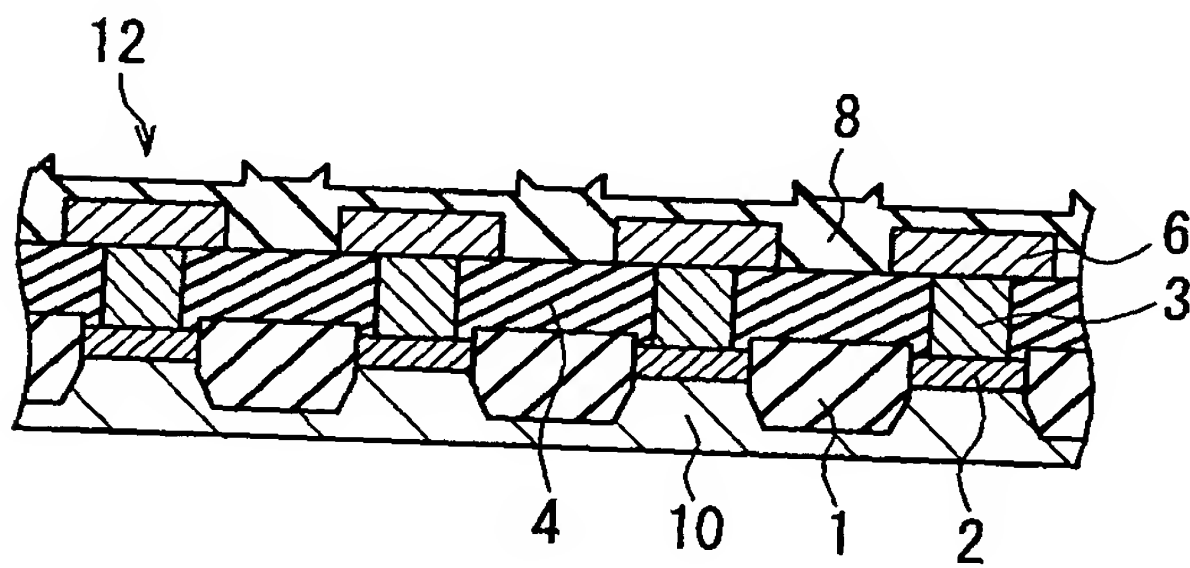


FIG. 7E

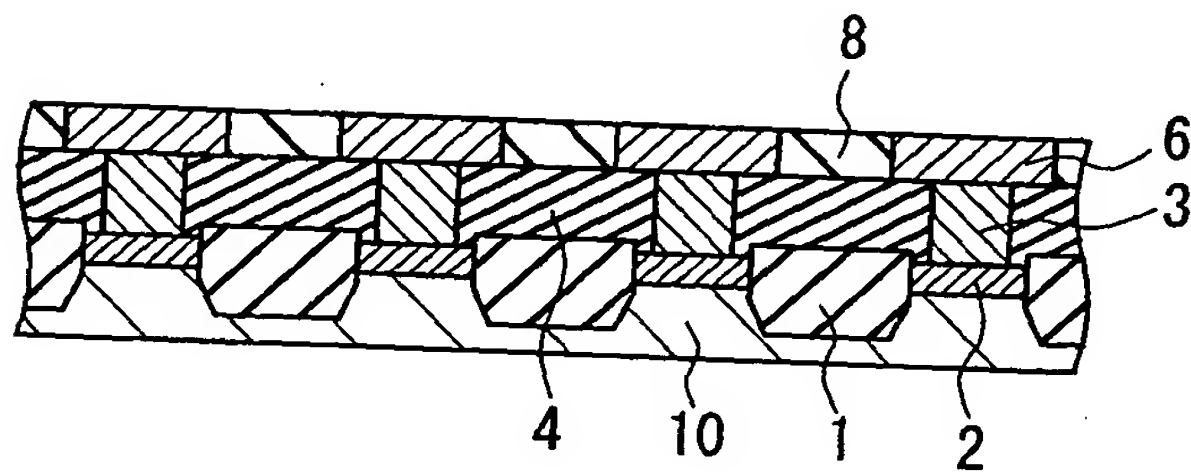


FIG. 8A

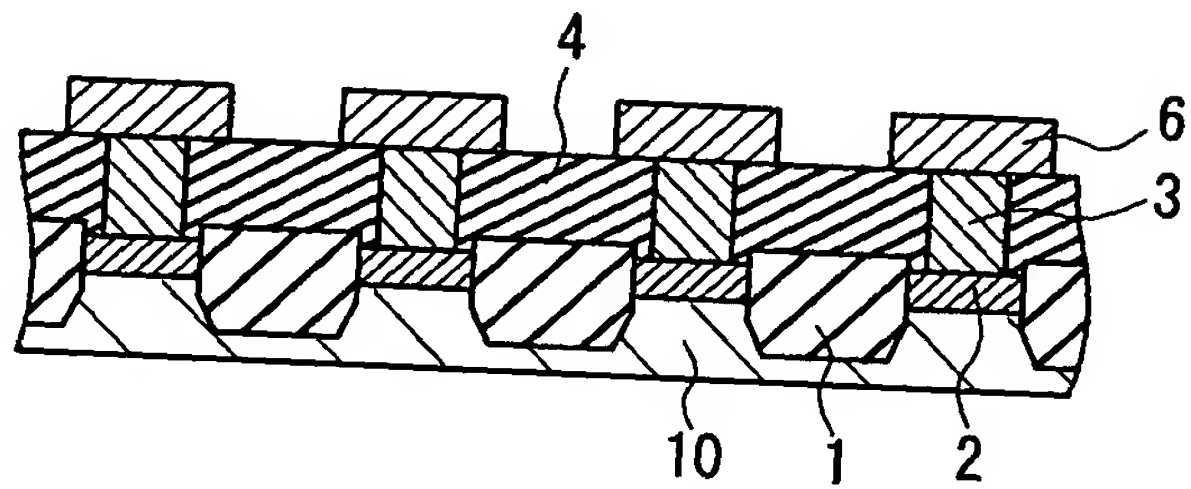


FIG. 8B

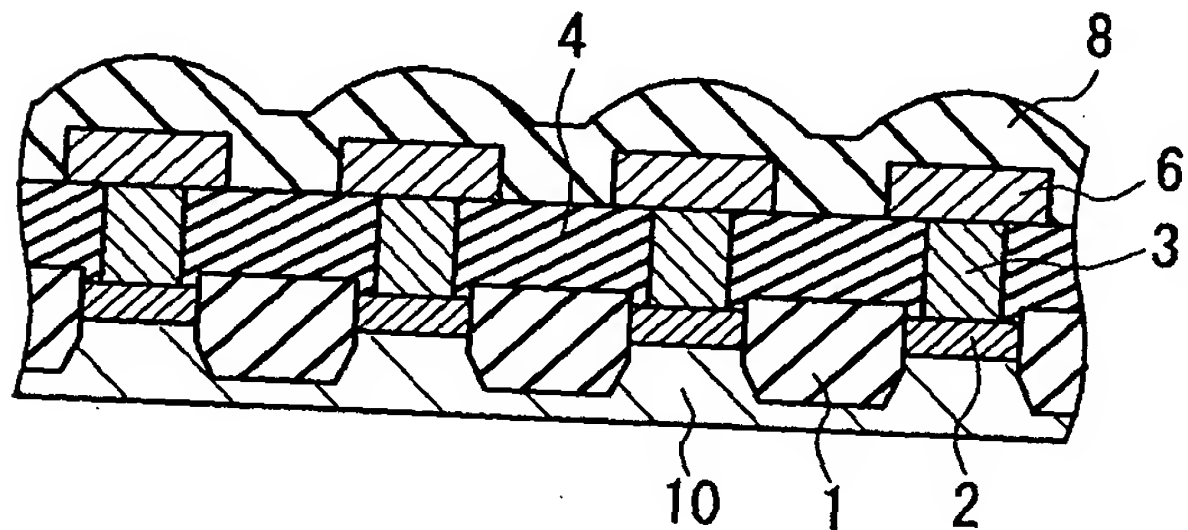


FIG. 8C

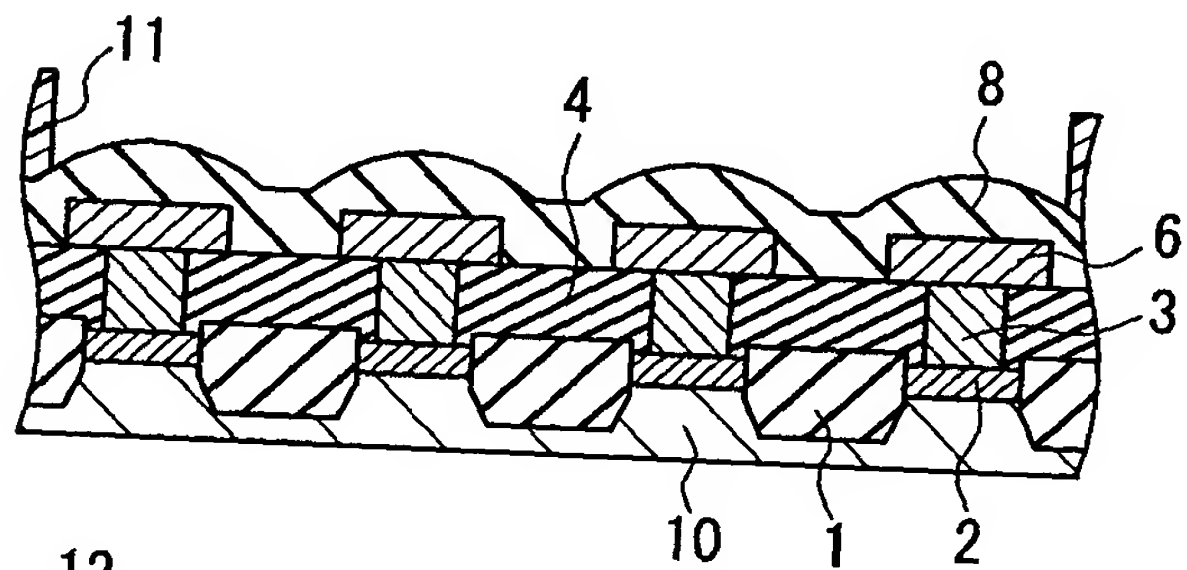


FIG. 8D

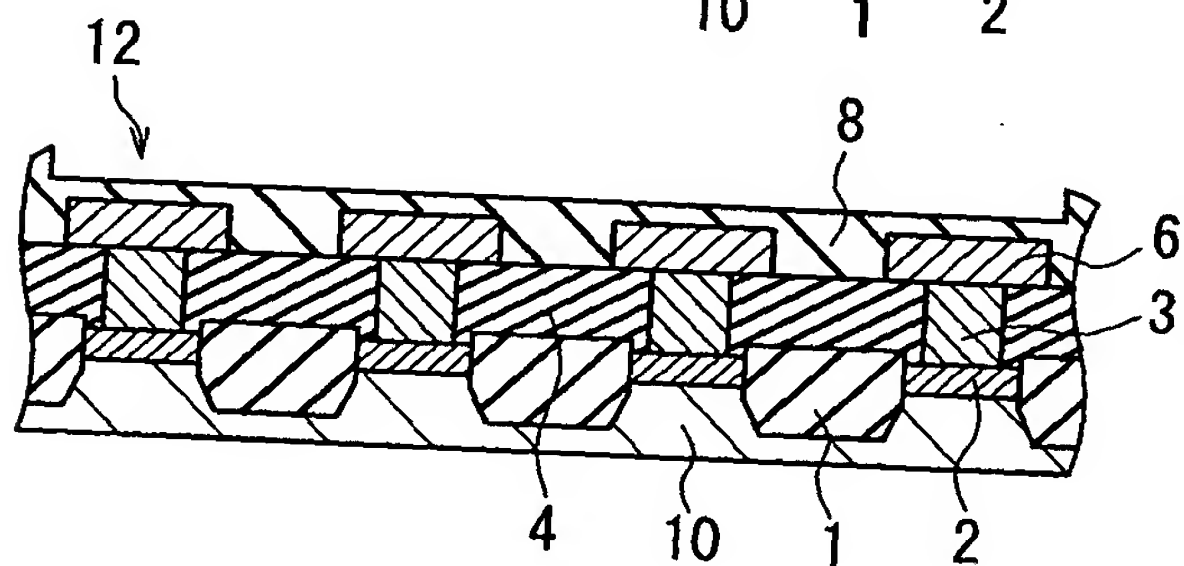
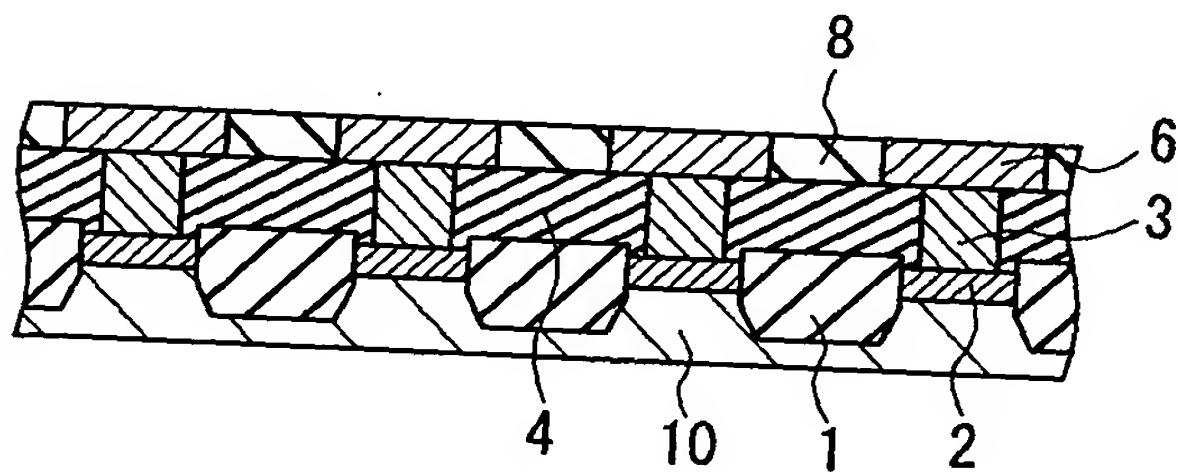


FIG. 8E



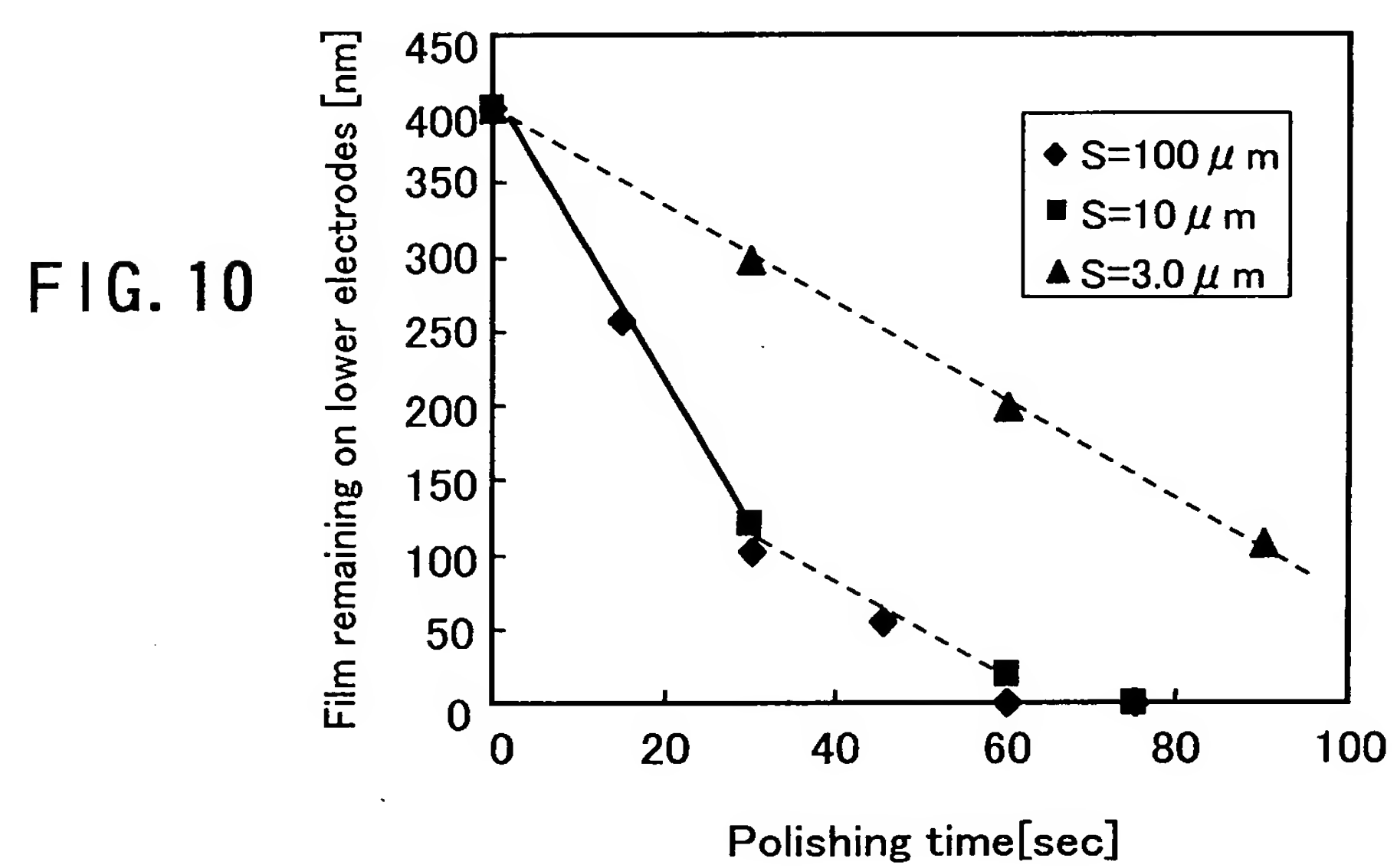
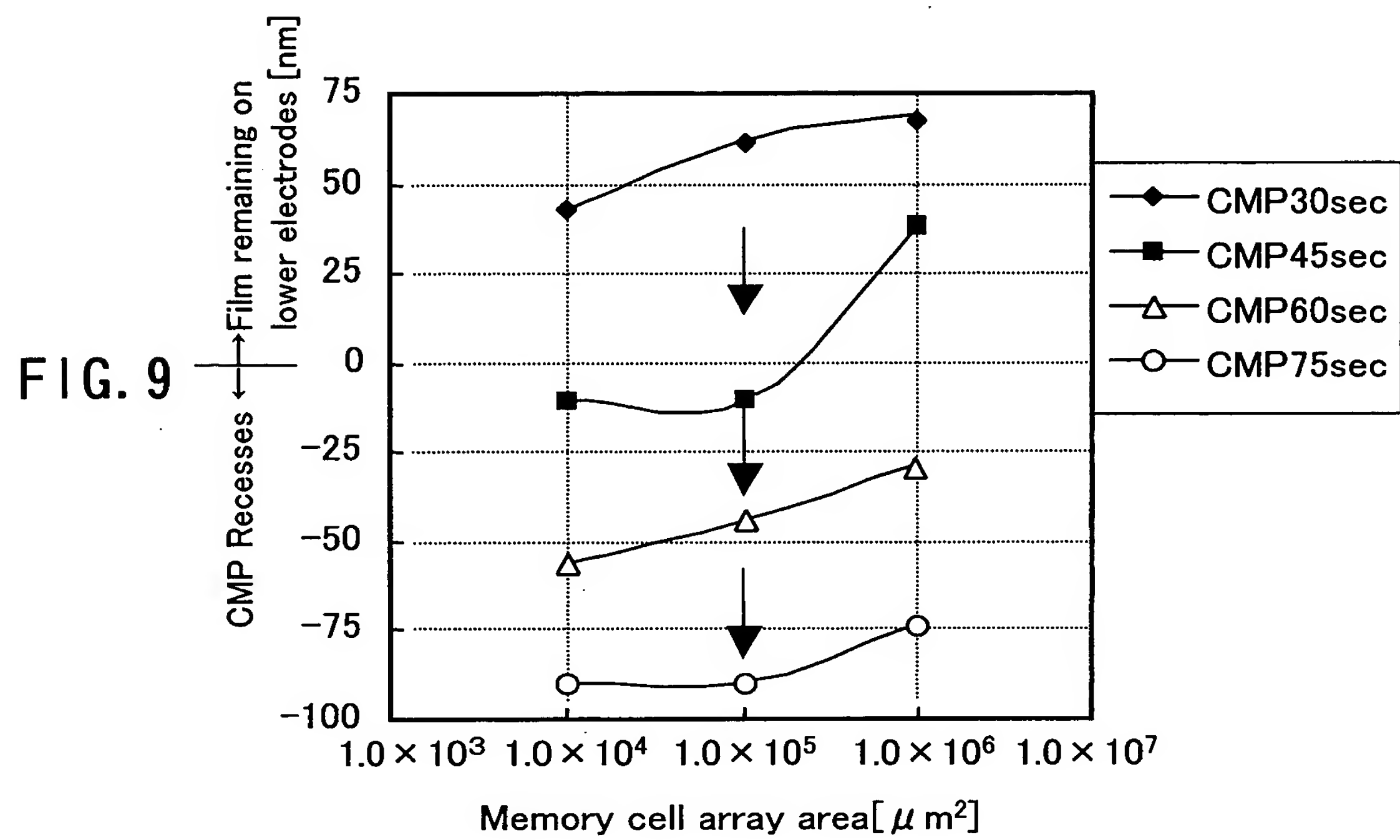


FIG. 11A
PRIOR ART

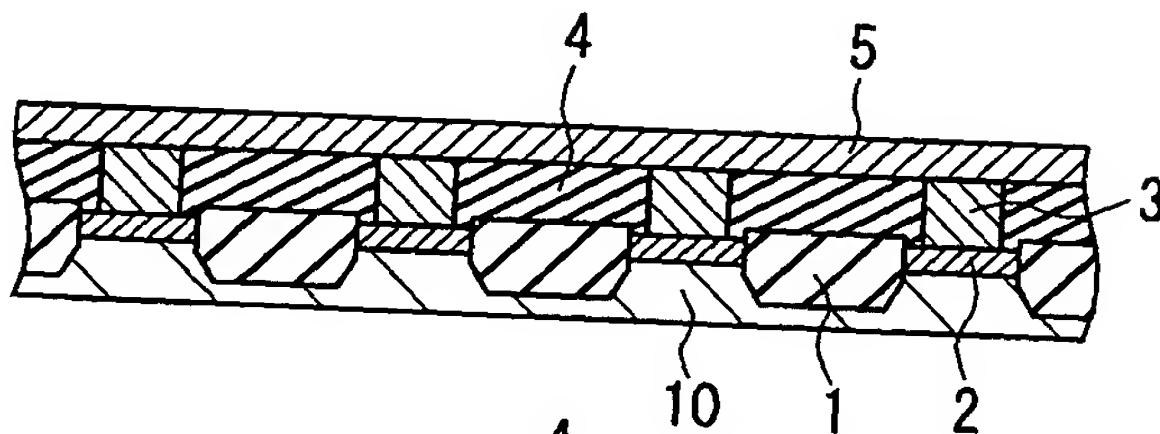


FIG. 11B
PRIOR ART

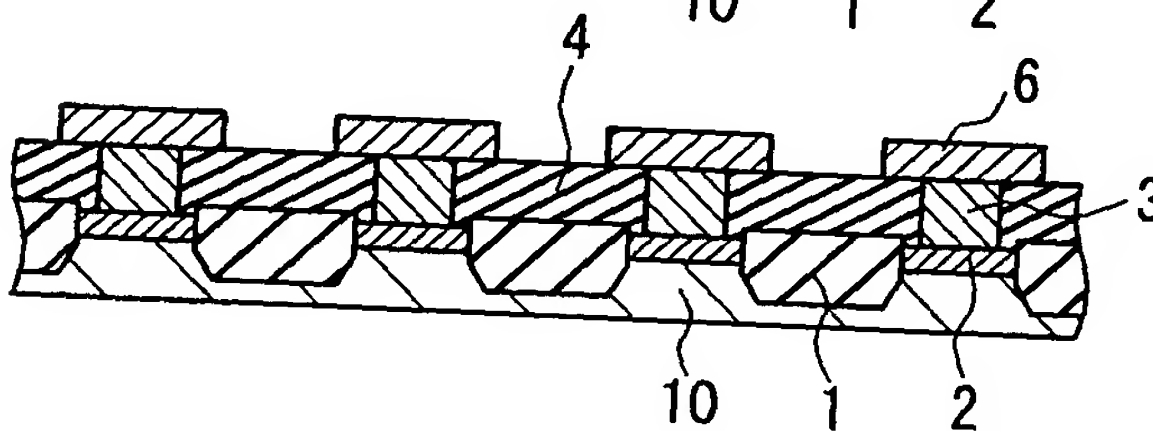


FIG. 11C
PRIOR ART

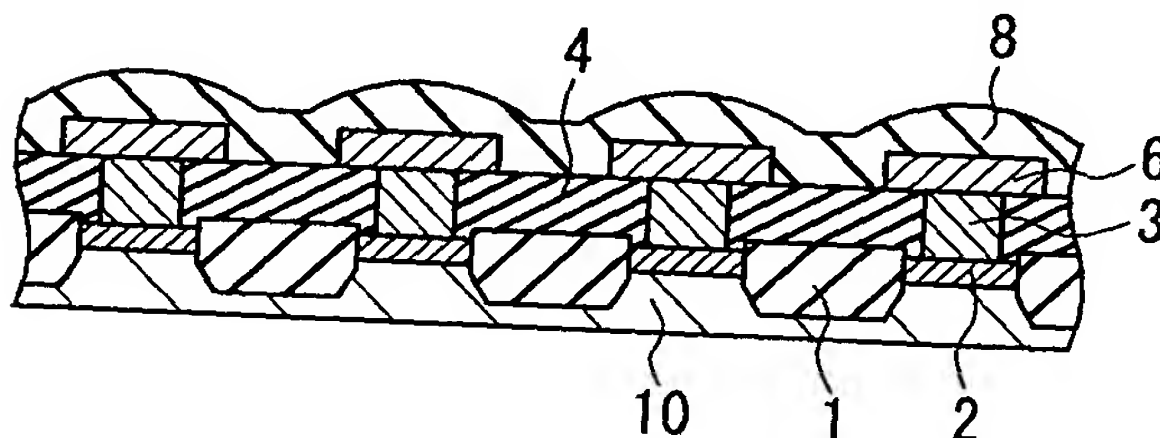


FIG. 11D
PRIOR ART

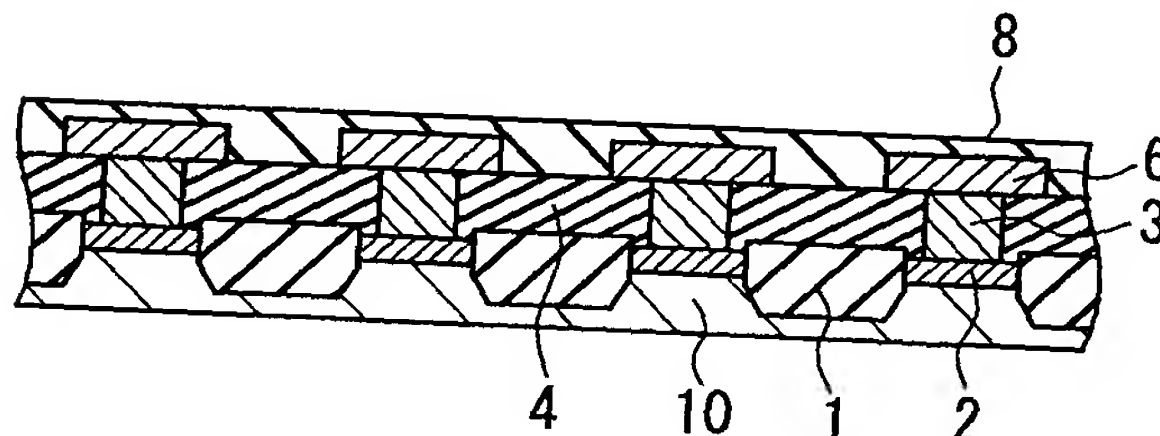


FIG. 11E
PRIOR ART

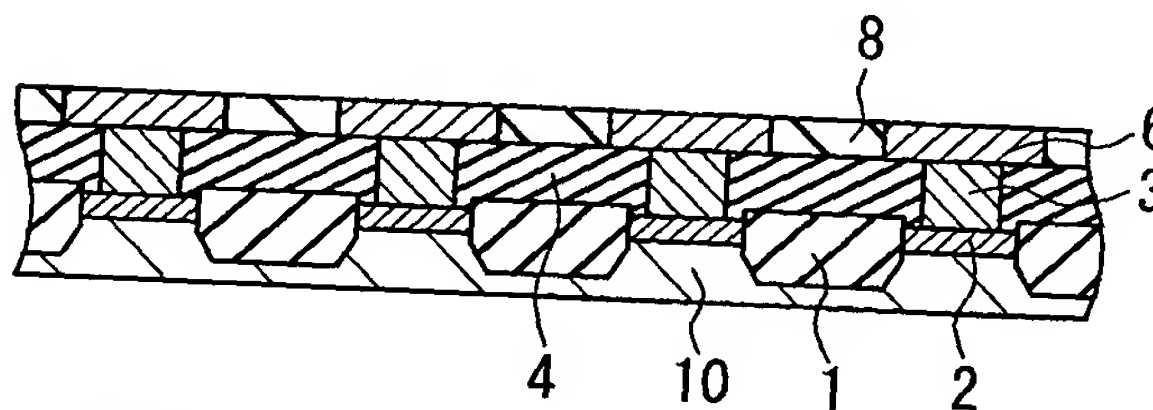


FIG. 11F
PRIOR ART

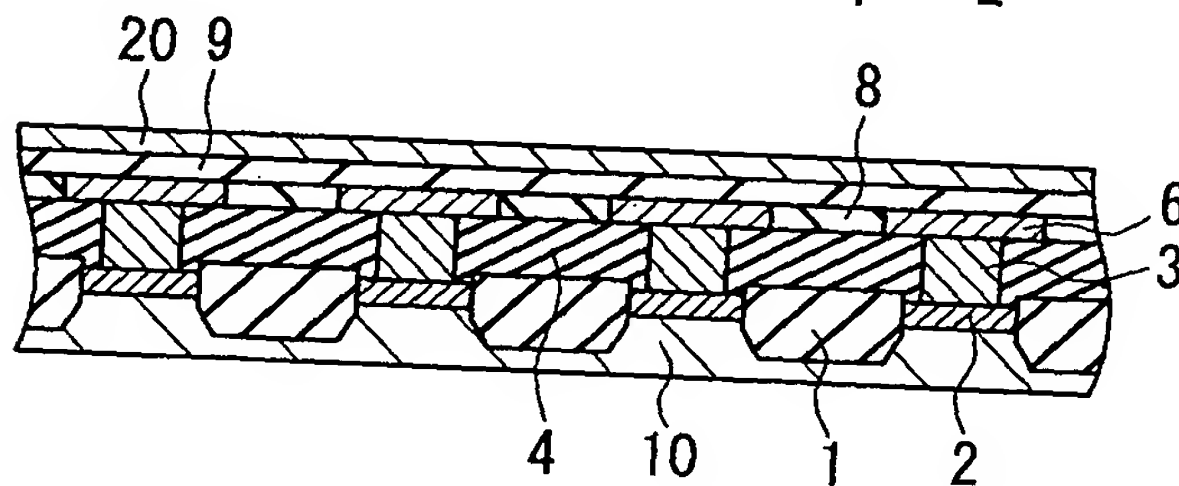


FIG. 12A
PRIOR ART

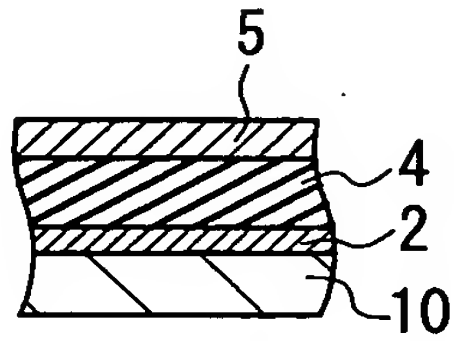


FIG. 12B
PRIOR ART

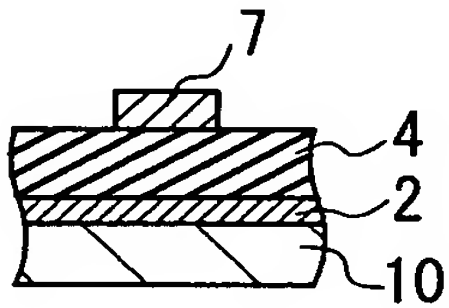


FIG. 12C
PRIOR ART

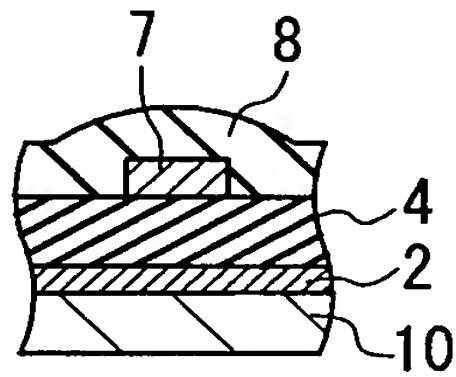


FIG. 12D
PRIOR ART

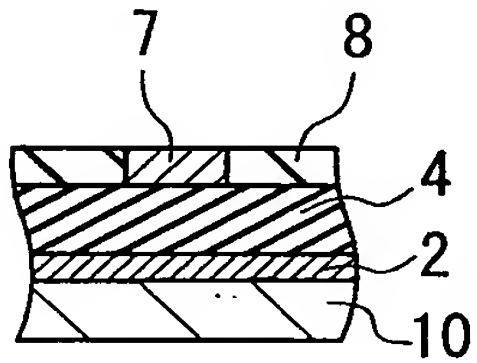
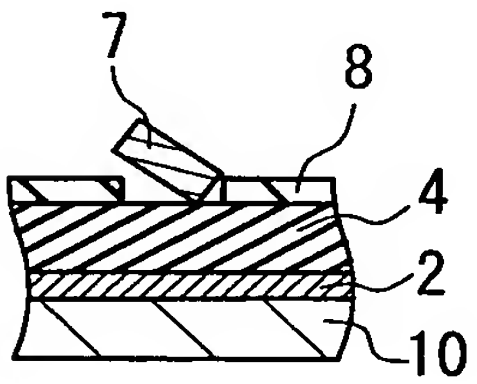


FIG. 12E
PRIOR ART



Larger memory cell array
surface area

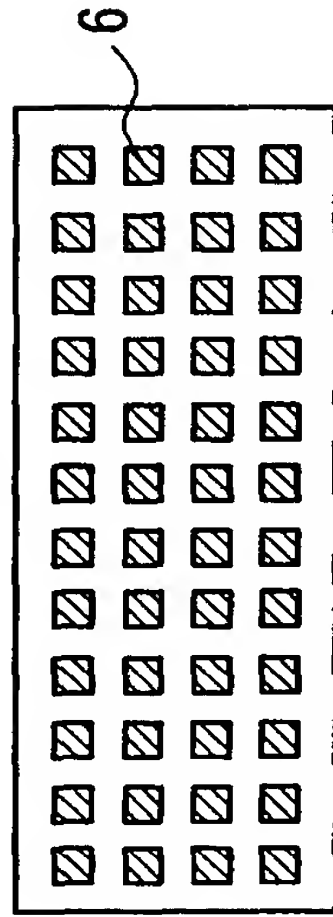


FIG. 13A1
PRIOR ART

Small memory cell array
surface area

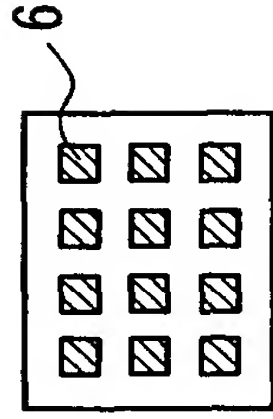


FIG. 13B1
PRIOR ART

Peripheral circuitry
without
lower electrodes

FIG. 13C1
PRIOR ART

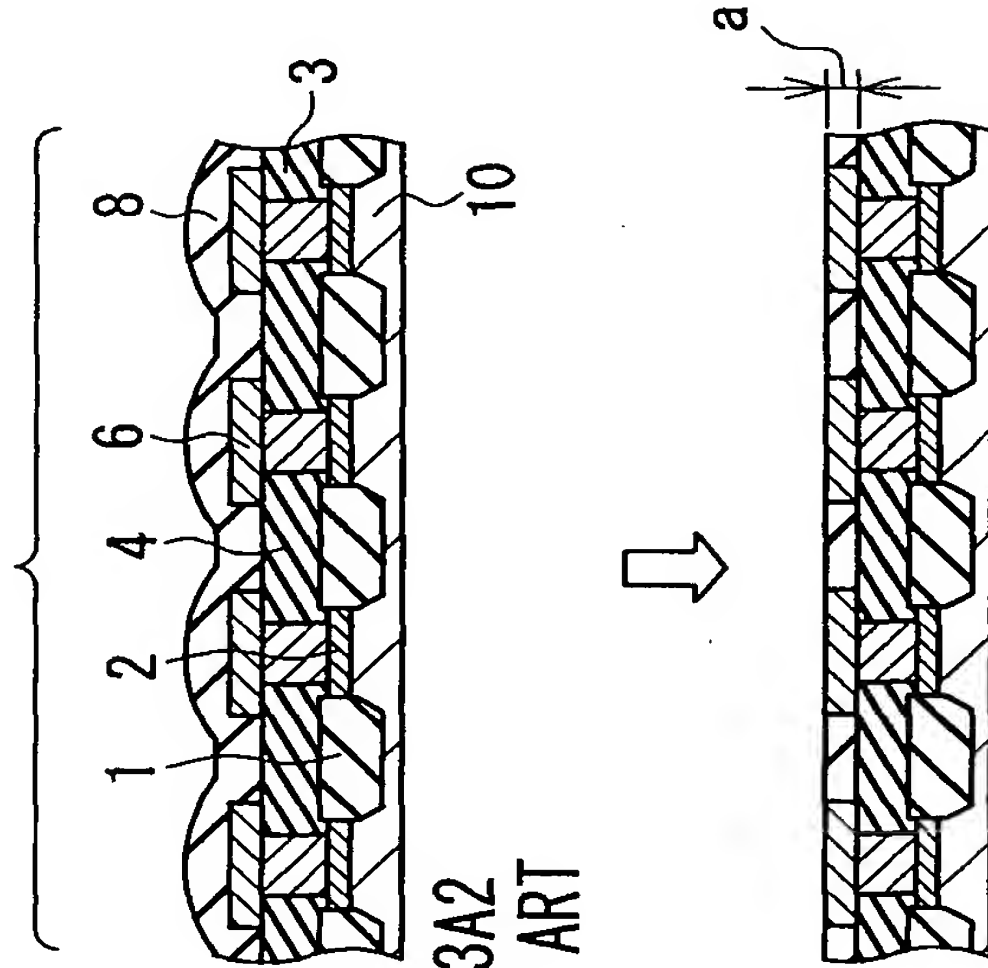


FIG. 13A2
PRIOR ART

FIG. 13A3
PRIOR ART

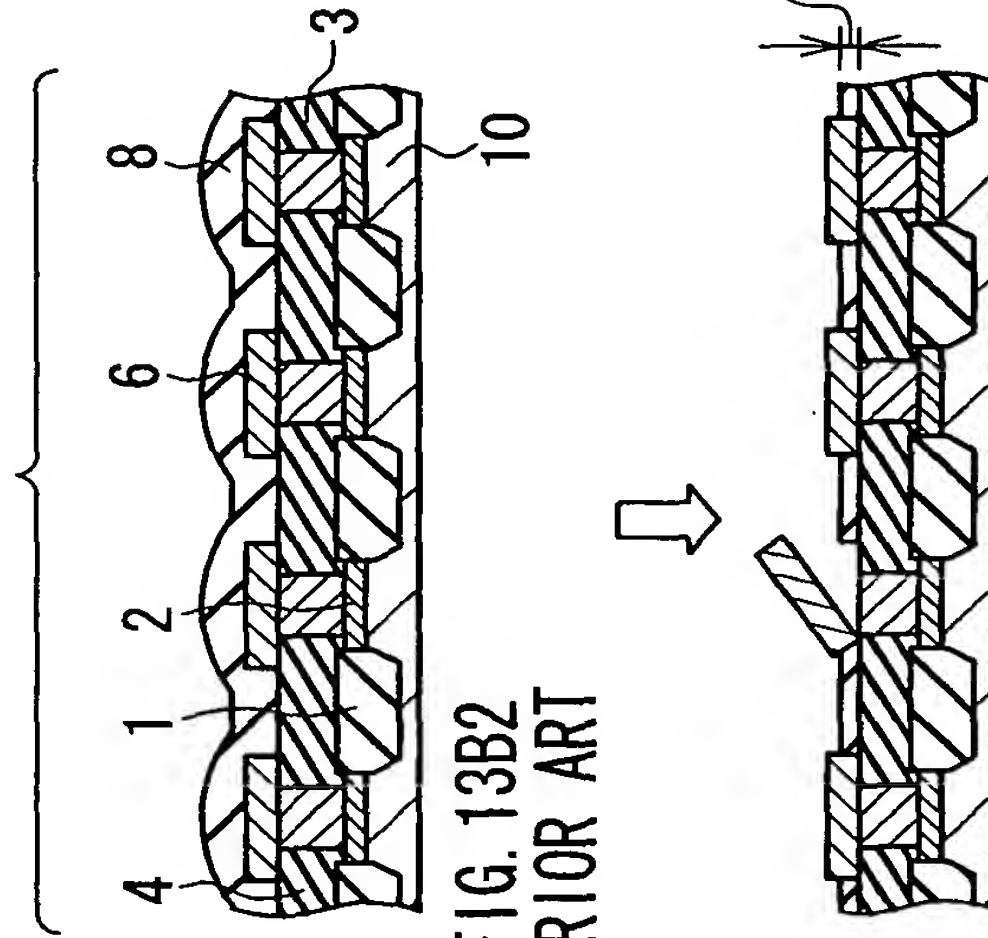


FIG. 13B2
PRIOR ART

FIG. 13B3
PRIOR ART

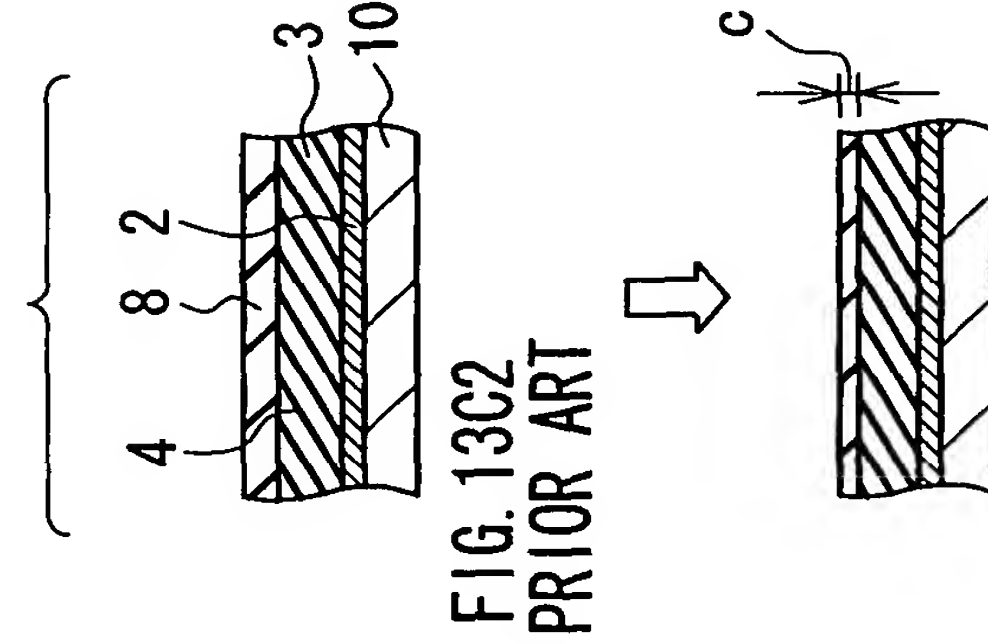


FIG. 13C2
PRIOR ART

FIG. 13C3
PRIOR ART

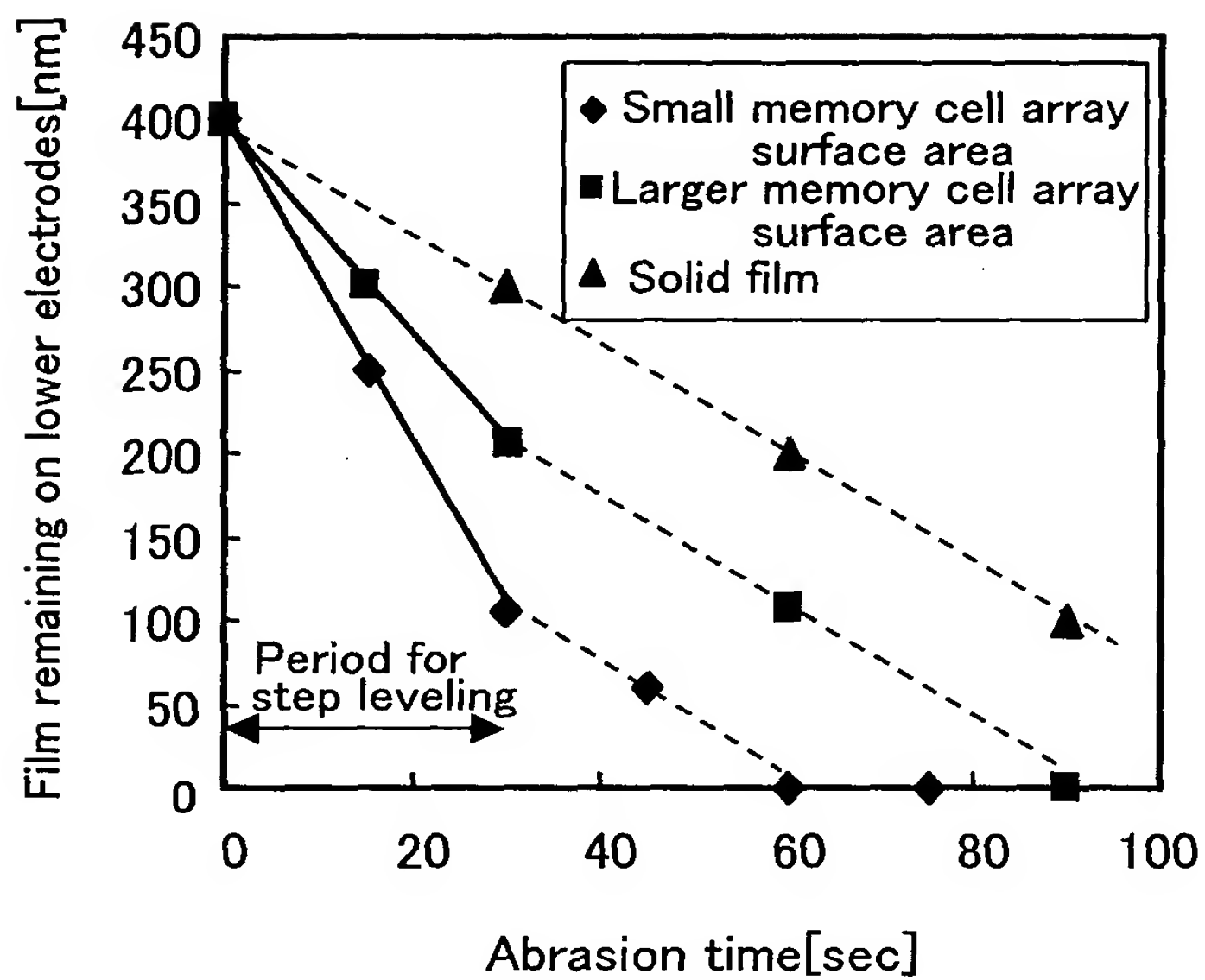


FIG. 14
PRIOR ART